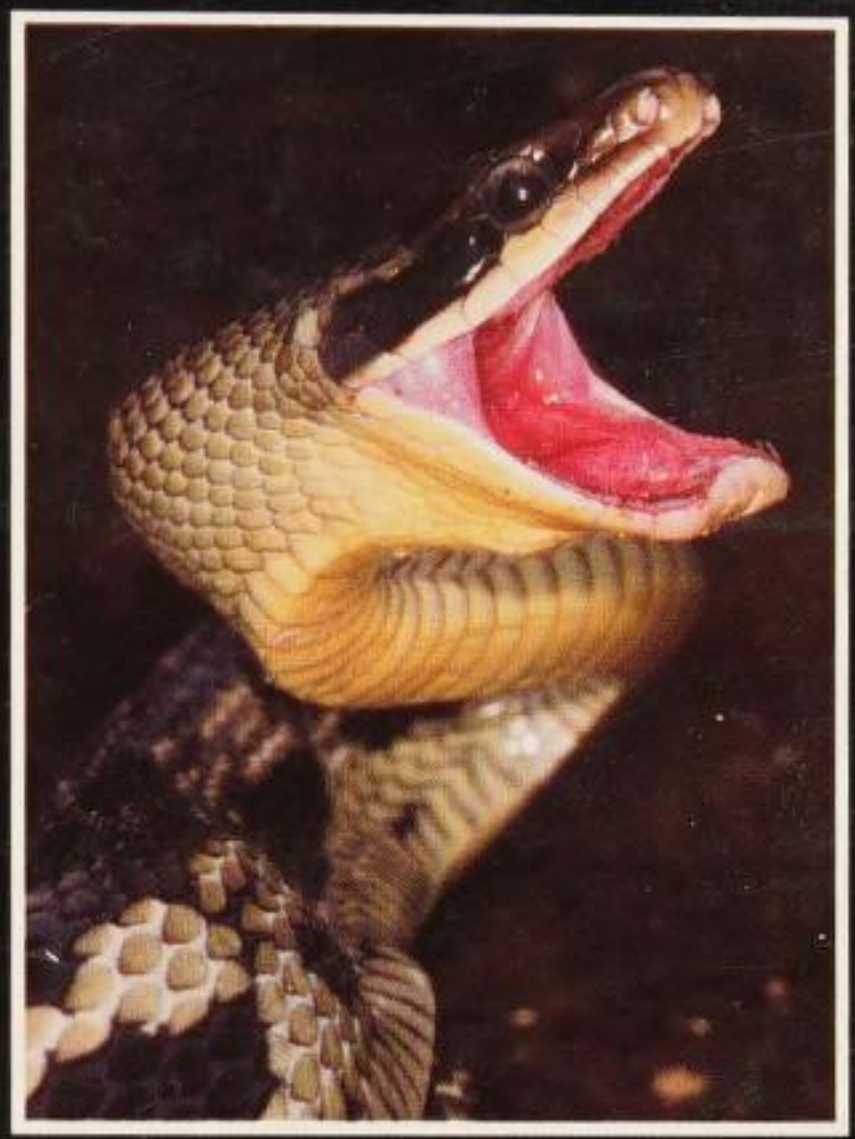
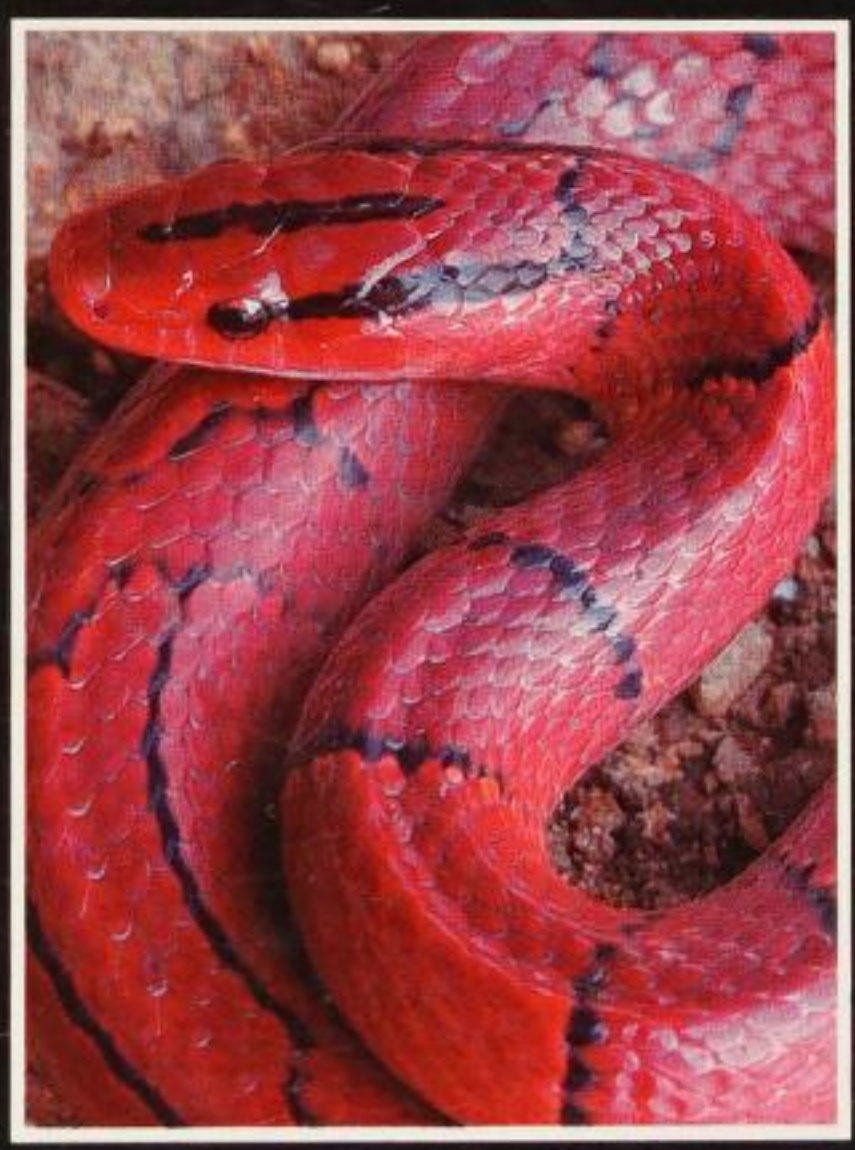
SNAKES OF INDIA

THE FIELD GUIDE





ROMULUS WHITAKER & ASHOK CAPTAIN

SHOUT
SHARE
IT

C D E

PLA

N W E S

200

300

International boundaries on t

Ladakh

JAMMU & KASHMIR

HIMACHAL PRADESH

Kulu

Simla

Mussoorie

UTTARANCHAL

Almora

Corbett

Mukteshwar

Nainital

DELHI

Agra

Balrampur

W. Champaran

E. Champaran

Faizabad

Gorakhpur

UTTAR PRADESH

Pusa

Purnea

Orcha

Patna

BIHAR

Sagar

Sijna

JHARKHAND

Jabalpur

MADHYA PRADESH

CHOTA NAGPUR PLATEAU

WEST BENGAL

Sagar

Pachmarhi

Balaghat

Nagpur

CHHATTISGARH

Gadchiroli

Cuttack

Bhubaneshwar

ORISSA

Puri

Chandrapur

Behrampur

Ganjam

Bastar

Vishakapatnam

ANDHRA PRADESH

Cumbum

Cudappah

Bangalore

Mysore

Chennai

Jalarpet

TAMIL NADU

B E

A N O C E A N

C D E

GAZETTEER PLATE 1

Site	State	Grid
Agra	Uttar Pradesh	C3
Almora	Uttaranchal	C3
Amravati	Maharashtra	C4
Asirgarh	Madhya Pradesh	C4
Balaghat	Madhya Pradesh	D4
Balrampur	Uttar Pradesh	D3
Baroda	Gujarat	B4
Bastar	Madhya Pradesh	D5
Berhampur	Orissa	D5
Kolkata	West Bengal	E4
Champaran	Bihar	D3
Chandrapur	Maharashtra	C4
Chota Nagpur Plateau	Jharkhand	D4/E4
Churu district	Rajasthan	B3
Corbett National Park	Uttar Pradesh	C3
Cuttack	Orissa	E4
Dachigam N. P.	Jammu and Kashmir	B2
Dehra Dun	Uttaranchal	C2
Dharamshala	Himachal Pradesh	C2
Faizabad	Uttar Pradesh	D3
Firozpur	Punjab	B2
Fyzabad	Haryana	C3
Gadchiroli	Maharashtra	D4
Ganjam	Orissa	E5
Gorakhpur	Uttar Pradesh	D3
Jabalpur	Madhya Pradesh	C4
Jaipur	Rajasthan	C3
Jalarpet	Andhra Pradesh	C6
Jammu	Jammu and Kashmir	B2
Jodhpur	Rajasthan	B3
Kargil	Jammu and Kashmir	C2
Khandesh	Gujarat	B4
Kulu	Himachal Pradesh	C2
Kutch	Gujarat	A4/B4
Ladakh	Jammu and Kashmir	C2
Mukteshwar	Uttaranchal	C3
Mussoorie	Uttaranchal	C2
Mysore	Karnataka	C6
Nagpur	Maharashtra	C4
Nainital	Uttaranchal	C3
Orcha	Uttar Pradesh	C3
Pachmarhi	Madhya Pradesh	C4
Panchmahal	Gujarat	B4
Patna	Bihar	E3
Poonch	Jammu and Kashmir	B2
Puri	Orissa	E4
Purnea	Bihar	E3
Pusa	Punjab	E3
Ramgadh	Rajasthan	C3
Sagar	Madhya Pradesh	C4
Simla	Himachal Pradesh	C2
Sijna	West Bengal	E4
Sonepat	Haryana	C3
Srinagar	Jammu and Kashmir	B2
Subathu	Uttaranchal	C2
Sunderbans	West Bengal	E4
Udhampur	Jammu and Kashmir	C2
Valsad	Gujarat	B4
Vishakapatnam	Andhra Pradesh	D5

Published by:
Draco Books
P O Box 21
Chengalpattu 603001
Tamil Nadu, India.

Copyright © 2004 in text: Romulus Whitaker & Ashok Captain.
Copyright © 2004 in photographs: as individually credited.
Copyright © 2004 Draco Books, India.
Copyright © 2007 Draco Books, India.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of the copyright owners.

First published 2004.

Front cover photographs: *Elaphe frenata* (Ashok Captain), *Orthriophis taeniurus* (Ashok Captain), *Pelamis platurus* (Jennifer Daltry), *Elaphe porphyracea* (Ashok Captain), *Laticauda colubrina* (Sameer Ghodke), *Coluber gracilis* (Ashok Captain & Shomen Mukherjee), *Calliophis nigrescens* (S.U. Saravanakumar).

Back cover photographs: *Naja sagittifera* (A.N.E.T.), *Trimeresurus labialis* (Sameer Ghodke).

Snakes of India, The Field Guide
by Romulus Whitaker and Ashok Captain

Design and Layout: Sujoy Chaudhuri & Ashok Captain
Maps developed with support from ECOLLAGE.

ISBN 81 901873 0 9

Reproduction by Reality Information Systems Pvt. Ltd., Pune, India
Printed and bound by Pragati Offset Pvt. Ltd., Hyderabad, India

SNAKES OF INDIA

THE FIELD GUIDE

ROMULUS WHITAKER & ASHOK CAPTAIN

with additional photographs by

Firoz Ahmed, Ramana Athreya, Kedar Bhide,
Amit Chavan, Jennifer Daltry, Indraneil Das, Anslem de Silva,
A.S. Gardner, Sameer Ghodke, Varad Giri, Vivek Gour-Broome,
Wolfgang Grossmann, Andreas Gumprecht, Ralf Hermann,
K. Jayaram, Janaki Lenin, Anita Malhotra, Sherman Minton,
Anees Mohammed, Shomen Mukherjee, Mark O'Shea,
Samraat Pawar, S. U. Saravanakumar, Sanjay Sondhi,
Rob Steubing, Frank Tillack, Wolfgang Wüster

Cartography by

Sujoy Chaudhuri

DRACO BOOKS
Chennai, India
2007

JERDON'S PIT VIPER *Protobothrops jerdonii*

Vijoynagar, Changlang District, Arunachal Pradesh, India

AC

ACKNOWLEDGEMENTS

My mother, Doris Norden Chattopadhyaya gave me my first snake book when I was five. She brought me to India when I was seven and encouraged me to pursue what must have seemed a weird career choice. We miss her beyond words.

My sisters, Gail and Nina and brother, Neel happily put up with snakes in the many places we lived. In America, legendary snakeman Bill Haast was my guru and my main snake hunting buddies were Heyward Clamp and Attila Beke. The Irula tribal snake catchers of Tamil Nadu taught me the fine art of snake hunting and much else.

Friends and family here and in many other parts of the world have helped keep the passion for snakes on the front burner and I'm deeply grateful to all of them.

Janaki Lenin has been editor, communicator and patient partner during the decade long gestation of this book. I love her for it.

Romulus Whitaker

MORE ACKNOWLEDGEMENTS

Many colleagues contributed to the development of the book. Jenny Daltry collected Indian snake notes from obscure journals, first contacted many of the contributing photographers and helped get the book moving. Others spent time, effort and their expertise making sure we got our facts right. These include: Harry Andrews; Ramana Athreya; Aaron Bauer; Kedar Bhide; Manish Chandi; J. C. Daniel; Indraneil Das; Shekar Dattatri; Patrick David; Anslem de Silva; Jim Foster; Bryan Fry; Carl Gans; Andrew S. Gardner, Hemant Ghate; Sameer Ghodke; Varad Giri; David Gower; Wolfgang Grossmann; Andreas Gumprecht; Ralf Hermann; Isaac Kehimkar; Anil and "Anna" (Neelimkumar) Khaire; M.A. Reza Khan; M.S. Khan; Anita Malhotra; Edmond Malnate; Roy McDiarmid; Anees Mohammed; Shomen Mukherjee; Jim Murphy; Samraat Pawar; Rohan Pethiyagoda; Arne Rasmussen; S.U. Saravanakumar; Mark O'Shea; Rick Shine; Klaus-Dieter Schulz; Rob Steubing; David Theakston; Roger Thorpe; Frank Tillack; Sanjay Thakur; Gernot Vogel; Harold Voris; Frederick Wagner; Van Wallach; David Warrell; Wolfgang Wüster; George Zug.

We also wish to acknowledge the Andaman and Nicobar Islands Environmental Team, the Center for Herpetology/ Madras Crocodile Bank Trust, the Bombay Natural History Society, the Indian Herpetological Society, Pune, World Wide Fund for Nature, India.

Romulus Whitaker
Ashok Captain

STILL MORE ACKNOWLEDGEMENTS

First: all the beautiful snakes featured within – without them, this book wouldn't exist. Next the old timers: J.E. Gray, A. C.L.G. Günther, G. Boulenger, K. Gharpurey, S. Minton, C. Pope, P. Russell, M. Smith and F. Wall - my knowledge is based on their work. Many people from the remotest corners of India and the world have helped make this book possible. I could never have done this without your help. I'm grateful to "snake people" and my "non-snake" friends who helped with snakes, photography, support (= money), film, free lunches and positive energy, which were instrumental in keeping a shoe-string project alive.

ARUNACHAL PRADESH: The Forest Department, especially S.R. Mehta, S.N. Kalita, P. Ringu, Mr. Deori, D.N. Singh, A. Gupta Choudhury, S.S. Chandiramani, "Doc" Haridasan, A. Borang, B.B. Bhatt, and N. Singh; my friends Phupla Singpho, P. Thongon, M.C. Roy, Murthy, Bom Bahadur, Teg Bahadur, L. Upadhyay and Sanjay Deopa; the Lisus of Shidi, Dawodi, Shiddi Co and Hazolo (especially Adu Ile Me, Lasayu and Anyi, Gojatsu and Guazadu) who adopted me and shared the secrets of their forests; the Indian Air Force; the Assam Rifles.

ANDAMAN & NICOBAR ISLANDS: The Forest Department; the Indian Navy and Coast Guard; Captain Rashid; and the Karens.

THE REST OF THE WORLD: Radha, Abhay and Zoonie Aima; Ishan Agarwal; Vidya Athreya; Erach Bharucha; Abhijit and Aniket Bhupan; Nana Bhutkar; Aysegul Birand; LSC and SHC; Naresh Chaturvedi; Preeti Chopra; Jos D'Silva; Kailash Darole; Mahesh Deshpande; Mukund Deshpande; Girish Dhere; Monika Erlach; Anton Gama; Harish Ghatge; Subhash Ghule; Leela, Ashok and Vivek Gour-Broome; Vithoba Hegde and many others at the BNHS; Vikram Hoshing; Shyam Jadhav; Raji Joshi; Jay, Rajiv and Sanjay Kadapatti; Jyoti Kalapa; Dilip Kamat; Chinmay Kanchi; Richa Kavade; Sameer Kehimkar; Sunil Khanzode; Rita and Ravi Khote; Rohit Kulkarni; Krushnamegh Kunte; Nivedita Lakhani; Sujata Lakhani-Goel; Padamini Lama; Subodh Maniktala; Gopal Nanavre; Anuprita Patel; Baba Patwardhan; Santosh Potdar; Kerbanu and Viraf Pudumjee; JR; Hemant Rajawade; Anil Raut; Sarang and Suhas Sathe; Onkar Sawant; Sudhir Sawant; Kiran Shah; Rasikbhai, Sanjay and Mayur Shah; Rajan Shirke; Amrut Singh; Sadanand Shirsat; Suhas and Pradeep Sonawane; Anita Taheer; Tipu Taheer; Zai Whitaker. I thank the Katraj and Akurdi Snake Parks Pune for allowing me to photograph their snakes.

Joe Slowinski – may you rest easy in the green mountains, my friend.

Ashok Captain

INVISIBLE PEOPLE

This book would be incomplete without us acknowledging those behind the scenes (it's a thankless job and they did it).

India: Pune – Angelo Lima Fernandes and Pritam Nahar of Reality Information Systems Pvt. Ltd. (www.realityinfo.com) gave us free run of their office and coffee machine. Yogesh More and Gajanan Kothawale worked miracles removing "dust and scratches" from sometimes bleak, scanned images. Hyderabad – P. Narendra, Venkat, K. Ramakrishna Prasad, A. S. Raju, J. Vijay Kumar, B. Srinivasa Rao and S. Naveen Krishna at Pragati Offset Pvt. Ltd. (www.pragati.com) all contributed to the printing of this book. We've been fortunate to have access to some of the best scanning and printing facilities in the world. Chennai – Janaki Lenin helped "standardize" the species descriptions and Vidya Sigamany did the language edits. Sirish Rao help to get an ISBN number.

Germany – Frank Tillack went through several earlier drafts of our descriptions and helped build the checklist. Andreas Gumprecht fine-combed the pit viper section.

France – Patrick David dug out several ancient references for our checklist and was always there to field murky taxonomic and Latin dilemmas.

America – Aaron Bauer edited the entire text and sorted out several desperate queries by "return mail". Frederick Wagner checked and contributed to our kukri snake descriptions; Van Wallach, ditto worm snakes; Harold Voris checked the water snakes' descriptions.

United Kingdom – Wolfgang Wüster (cobras); David Gower (our virtual "accessor" to the collection of the Natural History Museum, London).

Malaysia – Indraneil Das (for having replied to several years of frantic e-mails).

Romulus Whitaker
Ashok Captain

PHOTO CREDIT ABBREVIATIONS

AC - Ashok Captain
AG - Andreas Gumprecht
KB - Kedar Bhide
RH - Ralf Hermann
VG - Varad Giri

Amit C - Amit Chavan
AM - Anees Mohammed
FT - Frank Tillack
RW - Romulus Whitaker
WW - Wolfgang Wüster

AdS - Anslem de Silva
JCD - Jennifer C. Daltry
MOS - Mark O'Shea
SG - Sameer Ghodke
WG - Wolfgang Grossmann

A.N.E.T.

North Wandoor, South Andaman Island, India

ANDAMAN COBRA *Naja sagittifera*

FOREWORD

From small beginnings, wondrous things grow. The acorn to stately oak tree is an appropriate analogy for the present *Snakes of India*. In 1978, Rom Whitaker published his *Common Indian Snakes: A Field Guide*. That small guide contained accounts for 30 snake species. The present work has metamorphosed into a substantially larger and more comprehensive guide to Indian snakes and an incredibly attractive one through the photographic talents of Ashok Captain.

Snakes fascinate all of us, even if that fascination is terrifying for some individuals. For others, the fascination borders on addiction. Rom and Ashok are snake addicts. Their addiction is a beneficial one, because it has led them to share their addiction – knowledge and fascination with snakes and their biology – with all of us. There is much information to share and a book for laics cannot include it all, but even the professional herpetologist will find new observations and useful summaries of older data here. I mined *Common Indian Snakes* for both my scientific and popular writing, and undoubtedly I will become as dependent, perhaps addicted, to this version as well. The importance of this new *Snakes of India* is that it summarizes more than half the Indian snake fauna, telling us both what is known and the incredible amount remaining to be discovered. I hope both aspects will encourage users to broader and deeper studies of Indian snakes.

How many snake species occur in India and its northern bordering nations? I do not have an accurate count. Boulenger listed 264 species in 1890. Das listed 258 species in his 1996 biogeography of Indian reptiles. Seemingly during the past 100 years, systematic studies of Indian snakes have taxonomically eliminated more species than were discovered. Although this result may seem unlikely, the numbers speak for themselves and reflect changes in evolutionary concepts and taxonomic practice. Boulenger 's approach was strongly typological. He had a remarkably perceptive "taxonomic eye," considering his unfamiliarity with living specimens, and his recognized species largely persist. Malcolm Smith was somewhat less typological in his thinking, and he noted the varieties and color morphs within widespread species, although not providing formal names for them. His 1943 volume served and continues to serve us, but a new base is required that reflects a phylogenetic interpretation of Asian snakes. Wüster and colleagues have shown us that *Naja* is not a widespread polytypic species, but rather represents multiple lineages. Numerous other Asian snake "species" still harbor multiple species under the guise of being a widespread species where uniformity is assumed because no one has seriously examined geographic variation. Frog systematists have begun to test this widespread species concept and, with few exceptions, they have discovered that it is incorrect. It is no more likely to be true for snakes and lizards, as demonstrated by the cobra study. What does the preceding have to do with number of species? In Peninsular India, one cobra became three cobras – monocled cobra, spectacled cobra and central Asian cobra.

There is another aspect to the numbers game: biodiversity inventory with retention and study of voucher specimens. Indian local faunas are regularly inventoried. Unfortunately, I have the impression that the inventories frequently do not retain vouchers, and where voucher specimens are retained, the voucher are "identified" but not studied. How many new species remain undiscovered because of these two aspects? Likely 10-12% of the currently known fauna! When we began our herpetofaunal inventory of Myanmar in 1997, we estimated the snake fauna to consist of 144 species. At the end of 2003, our inventory suggests a minimum of 162 species, and that estimate does not include preliminary evidence suggesting multiple species hiding beneath the assumed taxonomic uniformity of widespread species.

Thus, 300 species is a reasonable guess for the total Indian snake fauna. I hope that Rom's and Ashok's summary of the better known species will stimulate more and better scientific observations on all Indian snakes, leading both to the discovery of new species and to a more complete understanding of the biology of all species. That will be a major success. Additionally, the book's success among those of us sharing the authors' fascination with snake biology will ensure that the book becomes available to a wider audience of Indians and allows them to share our fascination and respect for these marvelous animals. Knowledge and respect are the only assurance of the conservation and survival of the full diversity of Indian snakes.

George Zug
Smithsonian Institution

CONTENTS

What this book is about 1

Introduction to snakes in general 3

Checklist of the snakes of India 16

Introduction to snakes covered in this book 33

Species descriptions

Worm Snakes

1. Brahminy Worm Snake *Ramphotyphlops braminus* 46
2. Diard's Worm Snake *Typhlops diardii* 48
3. Beddome's Worm Snake *Typhlops beddomei* 50
4. Beaked Worm Snake *Grypotyphlops acutus* 52

Shieldtail Snakes

5. Pied-belly Shieldtail *Melanophidium punctatum* 54
6. Wall's Shieldtail *Brachyophidium rhodogaster* 58
7. Perrotet's Shieldtail *Plectrurus perrotetii* 60
8. Elliot's Shieldtail *Uropeltis ellioti* 62
9. Large-scaled Shieldtail *Uropeltis macrolepis macrolepis* 64
10. Mahableshwar Shieldtail *Uropeltis macrolepis mahableshwarensis* 68
11. Periyar Shieldtail *Uropeltis arcticeps madurensis* 70
12. Phipson's Shieldtail *Uropeltis phipsonii* 72
13. Ashambu Shieldtail *Uropeltis liura* 74

Sunbeam Snakes

14. Sunbeam Snake *Xenopeltis unicolor* 76

Pythons

15. Indian Rock Python *Python molurus molurus* 78
16. Burmese Python *Python molurus bivittatus* 80
17. Reticulated Python *Python reticulatus* 82

Boas

18. Common Sand Boa *Gongylophis conicus* 84
19. Red Sand Boa *Eryx johnii* 86
20. Whitaker's Boa *Eryx whitakeri* 90

Snail-eaters
21. Darjeeling Snail-eater *Pareas macularius* 94

File Snakes
22. File Snake *Acrochordus granulatus* 96

Trinket Snakes
23. Green Trinket Snake *Elaphe prasina* 98
24. Khasi Hills Trinket Snake *Elaphe frenata* 100
25. Red-tailed Trinket Snake *Gonyosoma oxycephalum* 104
26. Copper-headed Trinket Snake *Coelognathus radiatus* 106
27. Black-tailed Trinket Snake *Coelognathus flavolineatus* 108
28. Common Trinket Snake *Coelognathus helena helena* 110
29. Montane Trinket Snake *Coelognathus helena monticollaris* 112
30. Striped Trinket Snake *Orthriophis taeniurus yunnanensis* 114
31. Himalayan Trinket Snake *Orthriophis hodgsonii* 116
32. Eastern Trinket Snake *Orthriophis cantoris* 118
33. Banded Trinket Snake *Elaphe porphyracea porphyracea* 120
34. Mandarin Trinket Snake *Euprepiophis mandarinus* 122

Rat Snakes
35. Indian Rat Snake *Ptyas mucosa* 124
36. Indo-Chinese Rat Snake *Ptyas korros* 128
37. Green Rat Snake *Ptyas nigromarginata* 130

Racers
38. Glossy-bellied Racer *Coluber ventromaculatus* 134
39. Eastern Cliff Racer *Coluber ladacensis* 136
40. Banded Racer *Argyrogena fasciolata* 138
41. Slender Racer *Coluber gracilis* 142

Royal Snakes
42. Black-headed Royal Snake *Spalerosophis atriceps* 146
43. Red-spotted Royal Snake *Spalerosophis arenarius* 150

Stripe-necked Snakes
44. Günther's Stripe-necked Snake *Liopeltis frenata* 152

Awl-headed Snakes
45. Sind Awl-headed Snake *Lytorhynchus paradoxus* 154

Indian Smooth Snake
46. Indian Smooth Snake *Coronella brachyura* 156

Kukri Snakes
47. White-barred Kukri Snake *Oligodon albocinctus* 160
48. Russell's Kukri Snake *Oligodon taeniolatus* 162
49. Common Kukri Snake *Oligodon arnensis* 168
50. Western Kukri Snake *Oligodon affinis* 170
51. Nikhil's Kukri Snake *Oligodon nikhili* 172

Bronzeback Tree Snakes
52. Painted Bronzeback Tree Snake *Dendrelaphis pictus* 174
53. Green Bronzeback Tree Snake *Dendrelaphis cyanochloris* 178
54. Large-eyed Bronzeback Tree Snake *Dendrelaphis grandoculis* 182
55. Common Bronzeback Tree Snake *Dendrelaphis tristis* 184

Flying Snakes
56. Ornate Flying Snake *Chrysopelea ornata* 188
57. Paradise Flying Snake *Chrysopelea paradisi* 190

Wolf Snakes
58. Travancore Wolf Snake *Lycodon travancoricus* 192
59. Laotian Wolf Snake *Lycodon laoensis* 194
60. Yellow-speckled Wolf Snake *Lycodon jara* 196
61. Barred Wolf Snake *Lycodon striatus* 198
62. Yellow-spotted Wolf Snake *Lycodon flavomaculatus* 200
63. Common Wolf Snake *Lycodon aulicus* 202
64. Oriental Wolf Snake *Lycodon capucinus* 204
65. Zaw's Wolf Snake *Lycodon zawi* 206

Bridal Snakes
66. Bridal Snake *Dryocalamus nympha* 208

Black-headed Snakes
67. Collared Black-headed Snake *Sibynophis collaris* 210
68. Duméril's Black-headed Snake *Sibynophis subpunctatus* 212

Keelbacks and False Cobras
69. Venning's Keelback *Amphiesma venningi* 214
70. Khasi Hills Keelback *Amphiesma khasiense* 218
71. Cherrapunji Keelback *Amphiesma xenura* 220
72. Checkered Keelback *Xenochrophis piscator* 222
73. St. John's Keelback *Xenochrophis sanctijohannis* 224
74. Andaman Keelback *Xenochrophis melanzostus* 226
75. Triangle-spotted Keelback *Xenochrophis trianguligerus* 228
76. Himalayan Keelback *Rhabdophis himalayanus* 230
77. Red-necked Keelback *Rhabdophis subminiatus* 232

78. Striped Keelback *Amphiesma stolatum* 234
79. Himalayan Mountain Keelback *Amphiesma platyceps* 238
80. Beddome's Keelback *Amphiesma beddomei* 242
81. Hill Keelback *Amphiesma monticola* 246
82. False Cobra *Pseudoxenodon macrops* 250
83. Green Keelback *Macropisthodon plumbicolor* 256
84. Olive Keelback *Atretium schistosum* 260

Oriental Slender Snakes
85. Olive Oriental Slender Snake *Trachischium laeve* 262

Forest Snakes
86. Olive Forest Snake *Rhabdops olivaceus* 264

Iridescent Snake
87. Iridescent Snake *Blythia reticulata* 268

Narrow-headed Snakes
88. Striped Narrow-headed Snake *Xylophis perroteti* 272
89. Günther's Narrow-headed Snake *Xylophis stenorhynchus* 274

Cat Snakes
90. Large-spotted Cat Snake *Boiga multomaculata* 276
91. Tawny Cat Snake *Boiga ochracea* 280
92. Common Cat Snake *Boiga trigonata* 282
93. Eastern Cat Snake *Boiga gokool* 284
94. Ceylon Cat Snake *Boiga ceylonensis* 286
95. Beddome's Cat Snake *Boiga beddomei* 288
96. Andaman Cat Snake *Boiga andamanensis* 290
97. Green Cat Snake *Boiga cyanea* 294
98. Many-banded Cat Snake *Boiga multifasciata* 296
99. Eyed Cat Snake *Boiga ocellata* 300
100. Forsten's Cat Snake *Boiga forsteni* 302
101. Nicobar Cat Snake *Boiga wallachi* 306

Sand Snakes
102. Afro-Asian Sand Snake *Psammophis schokari* 308
103. Condanarus Sand Snake *Psammophis condanarus* 312
104. Stout Sand Snake *Psammophis longifrons* 314
105. Leith's Sand Snake *Psammophis leithii* 316

Mock Vipers
106. Mock Viper *Psammodynastes pulverulentus* 318

Vine Snakes
107. Günther's Vine Snake *Ahaetulla dispar* 322
108. Short-nosed Vine Snake *Ahaetulla prasina* 324
109. Common Vine Snake *Ahaetulla nasuta* 328
110. Brown Vine Snake *Ahaetulla pulverulenta* 332

Smooth-scaled Water Snakes
111. Plumbeous Smooth-scaled Water Snake *Enhydris plumbea* 334
112. Common Smooth-scaled Water Snake *Enhydris enhydris* 336
113. Siebold's Smooth-scaled Water Snake *Enhydris sieboldii* 338

Brackish Water Snakes
114. Dog-faced Water Snake *Cerberus rynchops* 340
115. Glossy Marsh Snake *Gerarda prevostiana* 344
116. Crab-eating Watersnake *Fordonia leucobalia* 348
117. Yellow-banded Mangrove Snake *Cantoria violacea* 350

Kraits
118. Banded Krait *Bungarus fasciatus* 352
119. Common Krait *Bungarus caeruleus* 354
120. Andaman Krait *Bungarus andamanensis* 358
121. Black Krait *Bungarus niger* 360
122. Wall's Sind Krait *Bungarus sindanus walli* 362

Coral Snakes
123. Slender Coral Snake *Calliophis melanurus* 364
124. Striped Coral Snake *Calliophis nigrescens* 366
125. Macclelland's Coral Snake *Sinomicrurus macclellandi* 370

Cobras
126. Spectacled Cobra *Naja naja* 372
127. Monocled Cobra *Naja kaouthia* 376
128. Andaman Cobra *Naja sagittifera* 378
129. Central Asian Cobra *Naja oxiana* 382

King Cobra
130. King Cobra *Ophiophagus hannah* 384

Sea Snakes
131. Yellow-lipped Sea Krait *Laticauda colubrina* 386
132. Jerdon's Sea Snake *Kerilia jerdonii* 388
133. Hook-nosed Sea Snake *Enhydrina schistosa* 390
134. Annulated Sea Snake *Hydrophis cyanocinctus* 392
135. Cochin Banded Sea Snake *Hydrophis ornatus* 394

136. Malacca Sea Snake *Hydrophis caerulescens* 396
137. Short Sea Snake *Lapemis curtus* 398
138. Large-headed Sea Snake *Astrotia stokesii* 400
139. Black and Yellow Sea Snake *Pelamis platurus* 402

Vipers
140. Russell's Viper *Daboia russelii* 404
141. Levantine Viper *Macrovipera lebetina* 408
142. Saw-scaled Viper *Echis carinatus* 410

Pit Vipers
143. Himalayan Pit Viper *Gloydius himalayanus* 414
144. Hump-nosed Pit Viper *Hypnale hypnale* 418
145. Large-scaled Pit Viper *Trimeresurus macrolepis* 422
146. Mountain Pit Viper *Ovophis monticola* 426
147. Jerdon's Pit Viper *Protobothrops jerdonii* 428
148. Malabar Pit Viper *Trimeresurus malabaricus* 430
149. Horseshoe Pit Viper *Trimeresurus strigatus* 434
150. Bamboo Pit Viper *Trimeresurus gramineus* 436
151. Medo Pit Viper *Trimeresurus medoensis* 440
152. Pope's Pit Viper *Trimeresurus popeiorum* 442
153. Cantor's Pit Viper *Trimeresurus cantori* 446
154. Andaman Pit Viper *Trimeresurus andersoni* 454
155. Spot-tailed Pit Viper *Trimeresurus erythrurus* 460
156. White-lipped Pit Viper *Trimeresurus albolabris* 462
157. Nicobar Pit Viper *Trimeresurus labialis* 466

Index to common names 470

Index to scientific names 475

WHAT THIS BOOK IS ABOUT

Snakes fascinate us more than any other animals on earth. Because people don't know much about them, snakes are misunderstood and feared. In India most of our snakes are absolutely harmless to humans while four species are responsible for thousands of deaths each year. Indian snakes range in size from a few centimeters to almost ten meters in length. Snakes live in scorching deserts, humid forests, cool hill ranges, in lakes, streams, and even in the sea. The variety of colors and patterns rivals the butterflies while their grace and fluidity are unmatched in nature. Snake behavior and adaptations are endlessly exciting but the first step is to be able to identify them.

This book illustrates and describes 157 of the over 270 species of snakes in India. Aside from the many endemic snakes found only in India, (including the shieldtail snakes and some other species in the Western Ghats and Northeast), many of these snakes are also found in neighboring countries which makes this a helpful reference for all of South Asia.

The last comprehensive book on Indian snakes was Malcolm Smith's book "Serpentes", Volume III of the Fauna of British India series, published back in 1943. It is still the most complete scientific work on snakes of our region and anyone who wants to study snakes seriously must get a copy! While this book aims to be a popular field guide, the addition of scalation details in each description makes it useful for specialists as well. Some snake names have been changed in the last 60 years. The old names are also given in the Checklist of the snakes of India.

On page 14 there is a list of books which describe the physiology, ecology, and behavior of snakes. While this book will touch upon these fascinating aspects, its main purpose is to provide a simple means of identifying snakes encountered in India. A good, clear, colour photograph is usually the best aid to identifying a snake. Other things which can be very helpful are whether the snake is stout or thin, fast or slow, in the water, up in a tree or underground, whether it is active by day or night and the geographic area where it is found. Many snakes hide during the hot summer months in a torpid state called estivation. Their 'release' comes with the monsoon rains. Snakes in colder parts of North India hibernate during the winter months. You often only get a glimpse of a snake and they are sometimes not easy to tell apart. When you next see one pay attention to color, pattern, size, head and body shape. Look for obvious differences: thin neck, triangular head; shape of eye pupil; keeled or smooth scales; small or large scales on the head; tail long and thin or stout and blunt.

There are over 270 different species of snakes in India but depending on where you live there are likely to be only a fraction of those in a single region. By following the steps below you can narrow down your choices. First, look at the different groups of snakes and you will soon see that the long thin ones are often tree snakes, short stout

ones often burrowers, all the paddle tail ones are sea snakes and so on. Venomous snakes are in the minority and they too generally have outstanding characteristics that are easy to identify. The next thing is to look at the distribution maps. *The maps are a good general guide to what snakes are in your area but their ranges could be larger than what we've shown.* If you live in a dry area like eastern Tamil Nadu or Gujarat you can very safely say that the majority of snakes found in the Western Ghats and the Northeast are not in your area. Similarly, if you live in the hills above 2000 meters, most of the plains species won't be found there. (Note: elevations are approximate.) Once you have narrowed down the snakes likely to be in your geographic area you can then look at the picture and description to pinpoint exactly which species it is. And if your interest in snakes is serious you can confirm the identification by counting scales. The species description pages are color coded. Red tabs indicate venomous snakes; orange tabs – mildly venomous and green tabs for non venomous snakes. However caution is advised (even when dealing with non venomous species) as recent studies show that several snakes previously considered to be non venomous have toxic saliva.

This field guide is aimed at travellers, naturalists, herpetologists, doctors and anybody who has an interest in the fantastic biodiversity of India where snakes are feared, revered and play a vital role in our lives.

INTRODUCTION TO SNAKES IN GENERAL

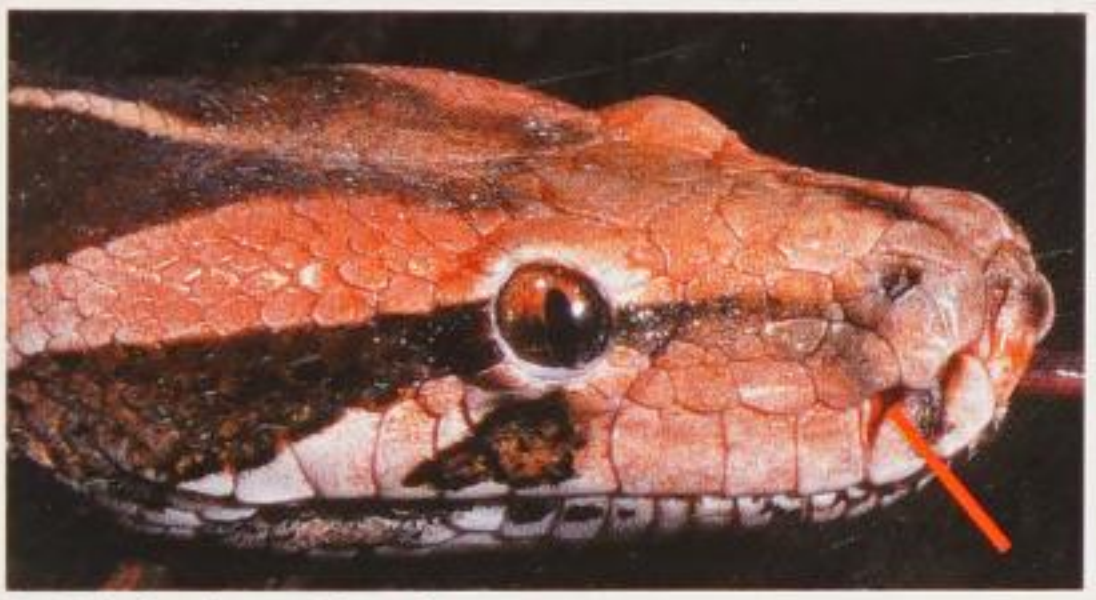
SENSES

Snakes probably don't see color and many are near-sighted, including the vipers and all the burrowers. Tree snakes, rat snakes and the King Cobra all have good vision and can see you coming from quite far away (though how far is not yet known). Some sea snakes have light sensors in their tails.

Snakes can smell with their nostrils but they rely mainly on the combination of their sensitive tongue (which picks up the odors) and the Jacobson's organ in the roof of the mouth (where the odors are "decoded").

The heat sensitive "pits" between the nostril and the eye in pit vipers can detect temperature change as slight as three thousandths of a degree Centigrade (0.003°C). Pits are very helpful in finding warm-blooded rodents or birds or even a slightly warm frog or toad on a cool dark night. Pythons have similar infrared receptors along their upper lips.

AC



P. m. molurus

Labial pits of python

T. erythrurus

Loreal pit of pit viper

WW

Snakes can actually "hear" very low frequency sounds in the 200 to 500 Hz range. They have no ears or eardrums but low sounds that hit the side of the skull are transferred to the inner ear through the jaw muscle and ear bone. They cannot hear sounds like talking, music or a gunshot. Snakes are sensitive to vibrations through the ground and in this way can feel you walking past.

FEEDING

All snakes are primarily predators. Some hunt by stealth and ambush, while others actively pursue their prey. Occasionally snakes will scavenge freshly dead animals. Smaller species like the Striped Keelback and water snakes eat frogs and fish. A little Saw-scaled Viper manages to swallow scorpions and some kukri snakes seem to specialize in eating eggs of other reptiles. Medium-sized and large snakes like cobras, rat snakes, trinket snakes and royal snakes relish rodents (as do pythons and the bigger vipers), while tree snakes like the bronzebacks and vine snakes go for lizards, birds, and frogs. Snakes also eat bats, frog eggs, snails and slugs while some

are snake-eaters. At the two ends of the size spectrum, tiny worm snakes eat insects and their larvae while giant pythons can kill and eat a deer or even a wild pig. In general, though, the everyday favorite prey items of our most common snakes are frogs, toads, rats, and mice.

U. m. macrolepis VG

Large-scaled Shieldtail feeding on earthworm

P. m. molurus

Python swallowing deer

Venomous snakes have evolved a cocktail of proteins, toxins, and digestive enzymes into an injectable venom to deal sudden death to their prey. Many "non-venomous" snakes actually have toxic saliva with which to subdue prey. Others like pythons and trinket snakes use constriction to suffocate theirs. For some, like the water snakes and the rat snakes, hunting technique is simple: grab and swallow, before the prey can get away.

BREEDING

About 60 species or approximately 25% of Indian snakes are ovoviviparous, that is, the eggs develop internally and females bear live young. Livebearers include the shieldtail snakes, sand boas, vine snakes, estuarine snakes, most sea snakes, most vipers and most pit vipers. All the rest of India's snakes are egg layers. It is not clear which of these methods is more successful, but some snakes like the cobras, both pythons, the Checkered Keelback, and the King Cobra stay with their eggs for the two months it takes them to hatch, providing safety for their clutch from predators. But in egg layers and livebearers alike, parent snakes do not look after their young – baby snakes have to find their food and watch out for predators all on their own.

The sex organs of snakes are internal, but with experience you can tell the sex of most snakes by noting the thicker tail base and longer tail of the male. Herpetologists

sex snakes by using a probe, which has to be done very gently, and takes a lot of training. Another way of determining the sex of a snake is knowing which sex grows larger. For example a large water snake, Striped Keelback, python or pit viper is invariably a female while a large cobra, rat snake or krait is probably a male.

Most snakes have a specific mating season each year (sometimes two seasons) and in a large country with many climatic conditions like India, mating seasons may vary from region to region. Males find females by following her pheromone or scent trail. At this time snakes may engage in a ritual fight called the combat dance. It appears to be a wrestling match where the snakes twine together and rear up trying to pin the other one down. There is generally no biting and the combat can last for an hour or more. Occasionally a male and female will perform combat but usually it's a pair of adult males. Combat dance by the Indian Rat Snake is commonly seen by people on farms. It is invariably called "mating" and no one is likely to be checking the sex of the combatants! In India, ritual combat has been observed in the following snakes: Dog-faced Water Snake, Common Krait, Saw-scaled Viper, Indian Rat Snake, and King Cobra.

MATING

The male has paired sex organs called the hemipenes. Each is referred to as a hemipenis. After arousing the female with jerks, butts, and even bites, he inserts one everted hemipenis into the female's cloaca and copulation can last for hours. Gestation lasts between 30-50 days and the size of a clutch of eggs or babies may vary from four to six in the case of smaller snakes like wolf snakes or kukri snakes, to 40 or more in the case of a python or Russell's Viper. Eggs are generally elongate and leathery and need high humidity and warm temperatures to develop. Snake eggs generally hatch in 60-70 days; the hatching time is largely dependent on the incubation temperature.

AC

P. m. molurus

Hemipenes of python

Baby snakes must fend for themselves as soon as they hatch or are born; newborn venomous snakes have fully functional fangs and tiny venom glands and know how to use them, but are vulnerable to a multitude of predators and few survive to adulthood. A baby python or sand boa is an expert constrictor from day one.

SNAKE MUSK

Snakes give off different types of smells which vary from plain old nasty fecal smells to discourage predators, to subtle scents to attract a mate. Some snakes, when stressed by capture or handling, will simply empty their bowels. A species specific "perfume" called musk is produced by a pair of glands in the cloaca. The consistency of this secretion can vary from a thick paste (as in rat snakes and kraits) to a fine spray (some vipers and pit vipers). The smell is highly variable and distinctive to the species; in the Indian Rat Snake and the Common Krait, it stinks, while cobra and pit viper musk is fairly pleasant. The musk of the Collared Black-headed Snake smells like cheap tobacco and Green Rat Snake musk is black and smells like enamel paint!

Musk serves as an easy way for snakes to identify each other and give an otherwise quite odorless animal a distinctive "flavor" which might deter predators like mongooses, civets, and wild pig. Our knowledge of the chemistry and function of snake perfumery is virtually nil and it would make a fascinating study.

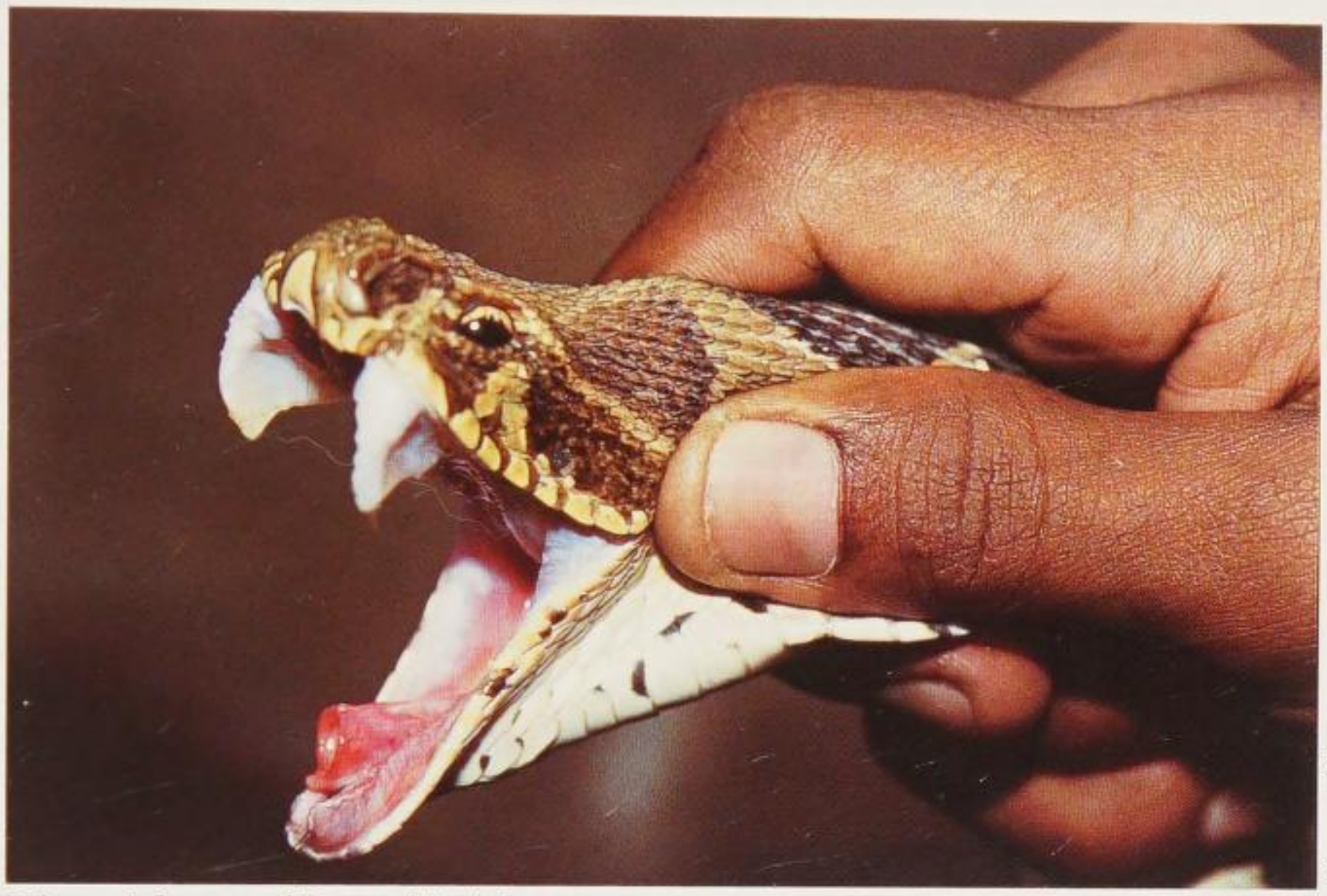
It is likely that some snakes at least, produce sex attractant smells from nuchal glands between the scales on the back of the neck, the way American garter snakes do. Pheromones may also guide snakes to hibernation sites in the North where winters are cold.

VENOM AND FANGS

All snakes are primarily predators and have evolved special tools to aid them in the hunt. All have backward curved teeth to prevent prey from escaping; some use strong coils of their body to constrict and suffocate. Many species of snakes we call non venomous, like the Checkered Keelback, wolf snakes and rat snakes, have toxic saliva secreted from the Duvernoy's gland. Some have enlarged rear teeth which puncture prey, aiding introduction of toxic saliva into their prey. This is a primitive venom delivery system compared with the front-fanged snakes. Bites from these "harmless" snakes along with the rear-fanged snakes can cause local swelling, pain and bleeding in humans. No resulting deaths have been reported in India.

Cobras, kraits, sea snakes, coral snakes and vipers have evolved toxic venoms and a very efficient injection system to subdue prey and for defense. These are the front-fanged snakes. In these the fang is a sharp hollow tooth modified to inject venom into prey. Venom is transported from the venom gland via a duct surrounded by muscle tissue that regulates the flow of venom. The snake can control the amount of venom delivered per bite. Krait and sea snake fangs are very short (2-4mm or 1/8 –¼ in); fangs are longer in cobras and king cobras (5-10mm or ¼ - ½ in). These are the "fixed fang" snakes which usually hang onto their prey and chew until enough venom is injected. The hinged fangs of vipers are a more intricate system that allows the snake to instantaneously strike, inject, and withdraw from the struggling prey. This technique reduces the chances of the snake getting injured. The fangs are

enclosed in a membranous sheath and fold backward and upward against the roof of the mouth. During the strike the fangs swing forward and the mouth can open to 180°. A large viper may have fangs 25mm (1 in) long.



Hinged fangs of Russell's Viper

Rear-fanged snakes include cat snakes, vine snakes and all the estuarine snakes. Their venom is mild to humans but can paralyze small animals like birds, lizards and frogs. The snake literally chews venom into its prey with the help of large grooved teeth in the back of the upper jaw.

Throughout the lives of all snakes, teeth and fangs are shed and replaced regularly. Fangs are shed in cycles as short as 10 days and as long as 70 days depending on the species and health of the snake.

Fangs aren't just for injecting venom; they can also be used for spraying it. Some African and Southeast Asian cobras spray venom up to 2.5m (9 ft). "Spitting" is a defensive behavior that has nothing to do with killing prey. Spitting cobras bite and envenomate their prey just as well as other venomous snakes. These snakes live in areas inhabited by large herbivores, that might trample them, or predators like mongooses that might eat them, and thus use their venom defensively. As far as we know, none of the Indian cobras "spit."

The composition and chemistry of snake venoms is very complex but scientists have long recognized these venoms as a cocktail of highly concentrated enzymes, toxins and proteins. In general, venoms are described as either neurotoxic (affecting the nervous system) or haemotoxic (affecting the circulatory system), although the venoms of many snakes contain both neurotoxic and haemotoxic components.

SNAKEBITE AND ANTIVENOM

India has some of the world's most venomous snakes and the high density of humans here makes snakebite a common medical problem. Accurate statistics are hard to come by, but perhaps half a million people are bitten by snakes each year in India and about 10,000 die. The Big Four, the snakes responsible for most of the serious bites, are the cobra (now known to be four species), the Common Krait, Russell's Viper, and the Saw-scaled Viper.

Cobras in particular come into regular contact with humans since they are active, wide-ranging hunters of rats, frogs and toads, all of which are found in and around our homes, gardens, and crop fields. Kraits will also seek rodents and reptiles around our homes, especially in southeastern and northwestern India. They enter homes at night and may bite people sleeping on the ground. Russell's Vipers are thick bush and hedgerow dwellers but the attraction of rodents in our crops often brings them close to us, especially to the paddy farmers at harvest time.

As we learn more about snakebite, it appears that Russell's Viper may cause the most fatalities. Small but dangerous, the Saw-scaled Viper is a snake of open, rocky areas, shunning forests and crop fields. In some barren areas, like the desert of northwestern India and the laterite tableland of the west coast, Saw-scaled Vipers are amazingly common but are absent in Northeast India, and neighboring Nepal, Bhutan, and Bangladesh.

The vipers have venom that damages blood vessel walls and disturbs the normal blood clotting mechanisms, while cobra and krait venom is mainly neurotoxic and can block conduction of the nerve impulses from nerves to muscles causing progressive paralysis. Symptoms of viper bite include severe pain at the site of the bite, rapid swelling of the bitten limb and if serious, non-clotting of blood, leaking of blood vessels, shock, and kidney failure. Cobra bites are painful and swelling is common, while krait bites are much less noticeable. In serious cobra and krait bites, the first signs of neurotoxic paralysis are drooping eyelids, double vision, and difficulty in swallowing.

Having introduced the Big Four in a somewhat grim scenario, it is important to understand that farm workers are most at risk as they walk barefoot along the overgrown edges of their fields during the peak periods of snake activity – early morning and late evening. In India, 75% of all snakebites occur below the knee. Walking at night without a torch, reaching into a pile of straw or firewood, and sleeping on the ground where snakes are common are the other main ways snakebites occur. Snakebites are rare where people know about snake habits and learn how to avoid encounters.

Snakes usually flee when humans approach, but are sometimes cornered or tread upon and that's when they may bite in self-defense. Fortunately the great majority

(85-90%) of venomous bites are not life-threatening as the snake generally injects only a small amount of venom or no venom at all (a "dry" bite). However, a bite from one of the Big Four must be treated as serious, following the simple steps outlined here:

1. Keep calm; even venomous snakebite is rarely fatal. In fact less than 15% of untreated venomous snakebites prove dangerous to life.

2. Keep the whole body and especially the bitten limb as still as possible and, in case of neurotoxic bites ONLY (cobras, kraits), apply a long stretchy bandage (crepe or elastic) around the whole of the bitten limb, starting at the fingers or toes, right up to the arm pit or groin. This should be as tight as for a sprained ankle. This will slow down the spread of venom without interfering with the blood flow to the limb.

3. Get to a hospital or primary health center which has antivenom serum, *without delay* and with as little exertion as possible (ideally, carry on a stretcher or ride in a vehicle, boat or bicycle).

Do not try first aid measures like "cut and suction", and very tight compression bands (tourniquets). Don't waste precious time on other remedies: none has been proven to work. They only seem to work because most snake bites are not fatal anyway. In fact using the old "cut and suction" first aid could actually cause a Saw-scaled Viper bite patient to bleed to death. This method increases local tissue damage and usually introduces infection.

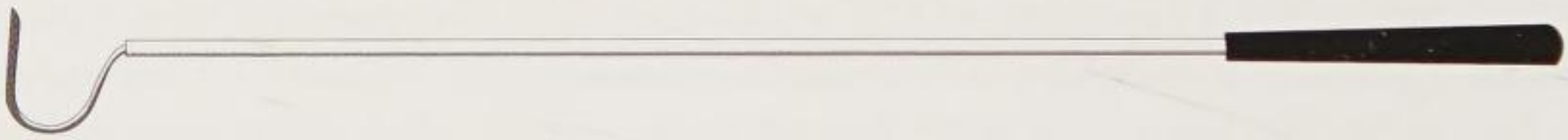
The first antivenom serum against cobra venom was made in 1904. Until the 1940s it was only available for cobra and Russell's Viper bite. Even when polyvalent serum became available recently (effective for bites of all of the Big Four venomous snakes), it was not widely distributed in rural areas. Lack of an effective snakebite remedy spawned a host of quack remedies like snake stones, gold chloride, "cut and suction", chanting and any number of herbal "remedies." Many of these desperate measures are still used today in rural India and even promoted by educated people who should know better. They often "work" only because in the majority of snakebites a serious or fatal dose of venom is not injected by the snake. Homeopathy and ayurveda can be useful in treating local symptoms of snakebite.

If snakebite is common in your area, make sure nearby clinics or primary health centers stock antivenom serum – it is a Government requirement. You can also stock your own antivenom. You can usually buy it (on prescription) from the pharmacy of a major hospital. Dry serum lasts for 5 years at room temperature and is good for bites of any of the Big Four. A basic respiratory assistance device such as an ambubag with an anesthetic mask or airway can be a lifesaver in the case of a serious cobra or krait bite that causes paralysis. Simple mouth-to-mouth or mouth-to-nose ventilation, without an apparatus, can save the life of someone whose breathing

muscles are paralyzed by snake venom. In fact snakebite patients have survived without antivenom using the combination of a respirator (to counter paralytic effects of the venom) and dialysis (to prevent kidney failure). This is useful information for bites of the other venomous snakes of India (Banded and other kraits, King Cobra, sea snakes and coral snakes) for which there is no antivenom made in India. Similarly, pit viper bite is rarely serious and no antivenom is available in India.

DO-IT-YOURSELF SNAKE REMOVAL

While it is always best to let a snake go its own way or call an experienced snake catcher, snakes can be safely removed from a house using a hooked stick and a large plastic garbage can with a lid. An alternative is a "bagger" which is simply a large cloth bag attached to a butterfly net or tennis racket frame. A snake hook is the standard snake handling tool and consists of a handle or shaft about 1.5m (5 feet) long (see illustration). At the end an U-shaped hook about 10cm x 10cm (4in x 4in) should be strongly attached by welding or binding. We have made snake hooks from bamboo poles, mop handles, and adjustable length paint roller handles. Nothing like a golf club though, for that good grip and professional look! The trick is to lift the snake into the garbage can without endangering yourself. Once the snake is safely inside and the lid shut, it can be taken out into the countryside for release.



Snakes naturally like to get into dark cool places and usually use a wall to crawl along. A short length of rigid tubing with the mouth of a snake bag tied to it, or a box with an opening just big enough for the snake to fit through can be used as a safer and more passive way of "bagging" the snake. If this box is the only escape the snake is provided with, it should eventually go in on its own. We have used similar "snake traps," attached to a long rope, to get snakes out of wells.

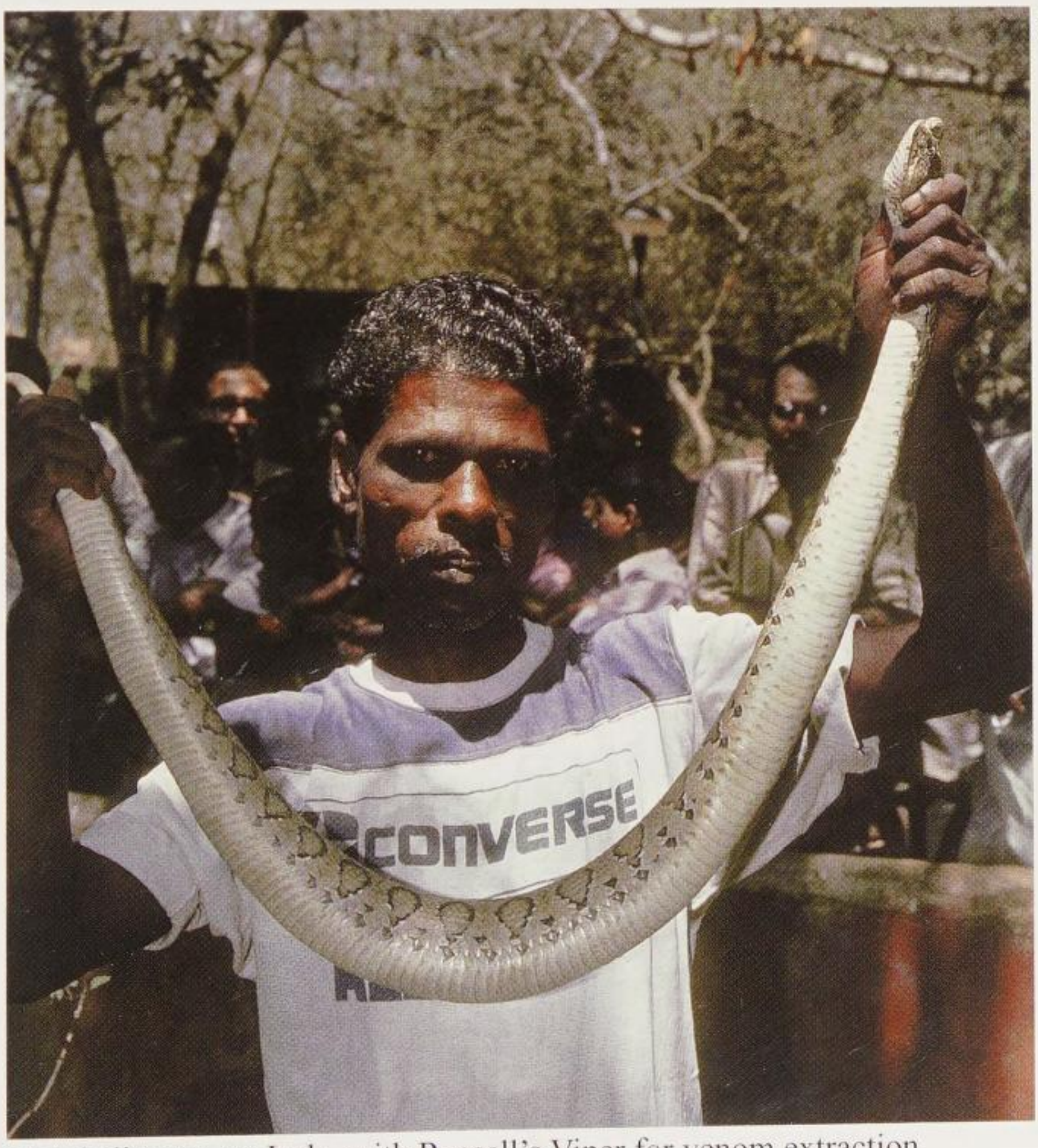
Remember, many bites happen because someone tries to kill or catch a snake. It's always best to leave a snake alone or call a professional to catch it for release in a safe place.

SNAKE RESCUERS

Since the advent of India's first snake park in Chennai back in 1970, there has been a dramatic increase in awareness about snakes. In many cities, rather than reaching for a stick to kill a snake, people are more likely to reach for the phone to call one of the specialists in snake rescue. These people are sometimes associated with local animal welfare groups like the SPCA and catch literally thousands of snakes in city and suburban houses and gardens and translocate them to forest areas. For example, two well-known rescuers of Mysore and Bangalore have caught close to 20,000 snakes in the past 10 years. Snake rescuers have to be recognized by the Forest Department who ensure that the snakes are released in a safe, suitable place.

SNAKE PEOPLE

When this author (RW) was growing up, he made friends with a number of snake charmers. It was soon obvious that they are mostly great sources of misinformation and make their living by fooling the public. Snake charmers cruelly defang the cobras they use in their shows and we know of several who found out the hard way that fangs will grow back! Probably the most impressive charmers are the "king cobra people" of Patia near Bhubaneshwar in Orissa who travel far and wide making people believe that snakes really like music! Around India there are entire villages of snake charmers but the combination of wildlife laws and animal welfare activists make snake charming a dying art. There is a move to teach snake charmers how to care for snakes and to encourage them to be educators rather than exploiters, but the scheme is still just an idea. It is tribal people like the Irulas of Tamil Nadu who really know snakes. They have an encyclopedic knowledge of their dry, hot plains forests. They had been hunter-gatherers for thousands of years here and when the snakeskin industry boomed these skilled hunters turned to snake catching. To hunt snakes with the Irulas (now only for the venom) is a lesson in nature lore like no other. They should be teaching Wildlife Biology, rather than desk and lab bound professors!



RW

D. russelii

Chockalingam, an Irula, with Russell's Viper for venom extraction

SNAKE LAWS IN INDIA

All snakes are protected under the Wildlife (Protection) Act, 1972. None can be collected, kept, transported or exported without the relevant permits from the Forest Department. The Wildlife Act had several orders of protection, Schedule I being the highest with three species of snakes:

- Indian Rock Python
- Reticulated Python
- Indian Egg-eater

The Indian Rock Python has a restricted range now, but in localities is still in safe numbers. The Reticulated Python has only been confirmed in the Nicobars where it is uncommon. The Indian Egg-eater is only known from a few specimens and hasn't been seen since the early 1900s.

The next order of protection is Schedule II, which includes:

- Indian Rat Snake
- Olive Keelback
- Cobras (4 species)
- Russell's Viper
- Checkered Keelback
- Dog-faced Water Snake
- King Cobra

Except the King Cobra and Andaman Cobra, all of these are common species. The rationale for giving them such a high order of paper protection was to help law enforcers control the snakeskin trade. Offences involving Schedule I and II snakes are punishable by one to six years in jail and a fine.

The rest of the Indian snakes are on Schedule IV of the Act and offences can result in fines up to Rs. 25,000 and/or imprisonment for up to three years. If you are interested in studying or keeping snakes, make sure you get that permit!

SNAKE CONSERVATION

Farmers may think they need chemical pesticides and fertilizers, but they need predators like snakes even more. Cobras and rat snakes are typical rodent eaters which live in our rice fields and granaries. Rats and mice eat and damage an estimated one fifth of India's grain production and without our scaly friends this damage would probably double or triple. Snakes are the ultimate rodent predators with the senses, speed, and ability to get down into burrows that make them far more effective than cats, mongooses, and other rat eaters.

As with so much of our wildlife, many snakes are facing hard times because of habitat loss for development. Clearing forests raises the ground temperature and dries the land which affects snakes drastically, especially the burrowers which have taken millions of years to become specially adapted to this way of life. India is facing more land degradation than probably any part of the earth and the question is, how long will it take before we produce another vast Sahara Desert? Snakes, especially the large conspicuous ones like pythons and the King Cobra, are more vulnerable than other, more adaptable or mobile creatures. No one knows what impact rampant subsidized pesticide use is having on snakes but it must be massive. The human race is hell bent on producing a monoculture world inhabited by "survivors" including: people, rats, cockroaches, crows, and ants. If any snakes survive the massive destruction that is taking place, they will at least be assured of plenty of rats!

On a positive note, the banning of the snakeskin trade in India in the mid 1970s halted a slaughter that peaked at 10 million snakes killed per year! Though there is still some snakeskin export from other countries in the region plus a small amount of smuggling, the overall numbers are a tiny fraction of what they used to be.

Snakes are caught for their venom, mostly to produce life-saving antivenom serum, but also to feed a small market for biochemical research and some other medical products. The potential for revealing more pharmacological secrets in snake venoms definitely exists and research continues in snake venom toxicology. The Irula Snake Catchers' Cooperative Society in Tamil Nadu, India produces most of the venom used for the huge quantities of antivenom serum needed in India. This unique cooperative is owned and operated by traditional tribal snake hunters. One of their revolutionary approaches to the business of venom extraction is to release the snakes back into the wild after four extractions.

At the top of the food chain, snakes are a vital component of our ecosystem, besides being colorful, sinuous, graceful creatures that we just can't help admiring.

FURTHER READING

BOOKS

1. Daniel, J. C. 2002. *The Book of Indian Reptiles and Amphibians*. Bombay Natural History Society. Oxford University Press, Mumbai. 238 pp.
2. Das, I. 2002. *A Photographic Guide to the Snakes and Other Reptiles of India*. New Holland Publishers (UK) Ltd. 144 pp.
3. Ernst C. and Zug, G. 1996. *Snakes in Question*. Smithsonian Institution. 203 pp.
4. Günther A. C. L. G. 1864. *The Reptiles of British India*. London. (Ray Society). Reprinted by Oxford & I. B. H. Publishing Co. New Delhi. 452 pp. (Also available as a free pdf download on the net).
5. Gyi, K. K. 1970. *A Revision of Colubrid Snakes of the Subfamily Homalopsinae*. Univ. of Kansas Publications, Museum of Natural History, Lawrence. 20: 2. 47-223 pp.
6. Heatwole H. 1999. *Sea Snakes*. U. N. S. W. Press, Sydney, Australia. 148 pp.
7. Minton, S. A. 1966. *A contribution to the Herpetology of West Pakistan*. Bulletin of the American Museum of Natural History 134: 184 pp.
8. Pope, C. H. 1935. *The Reptiles of China. Turtles, Crocodilians, Snakes, Lizards*. American Museum of Natural History, Natural History Central Asia, New York 10: 604 pp.
9. Schleich, H. H. & Kästle, W. 2002. *Amphibians and Reptiles of Nepal*. Distributors: Koeltz Scientific Books, Germany. 1201 pp.
10. Schulz, K-D. 1996. *A Monograph of the Colubrid Snakes of the Genus Elaphe* Fitzinger. Koeltz Scientific Books, Germany. 439 pp.
11. Shaw, G. E., Shebbeare, E.O. & Barker, P. E. (reprinted 2000). *The Snakes of Sikkim and Bengal*. Asiatic Publishing House, Delhi. 125 pp.
12. de Silva, A. 1990. *Colour Guide to the Snakes of Sri Lanka*. R & A Publishing, U. K. 130 pp.
13. Smith, M. A. 1943. *The Fauna of British India, Ceylon and Burma, including the whole of the Indo-Chinese region. Vol. III. Serpentes*. Taylor and Francis, London. 583 pp. (See pp. 533-567 for an excellent bibliography).
14. Smith, M. A. 1926. *Monograph of the Sea-snakes (Hydrophiidae)*. Taylor and Francis, London. 130 pp.
15. Wall, F. 1921. *Ophidia Taprobanica or The Snakes of Ceylon*. Government Press, Colombo. 1993 – reprinted by Navrang, India. 581 pp.
16. Whitaker, R. 1978. *Common Indian Snakes: A Field Guide*. Macmillan India Ltd. 154 pp.

JOURNALS & NEWSLETTERS

1. *JOURNAL OF THE BOMBAY NATURAL HISTORY SOCIETY*. Bombay Natural History Society, Hornbill House, S. Bhagat Singh Road, Mumbai 400 023, Maharashtra, India.
2. *HAMADRYAD*. Journal of the Centre for Herpetology/Madras Crocodile Bank Trust. Post Bag 4, Mamallapuram 603 104, Tamil Nadu, India.
3. *COBRA*. Newsletter of the Chennai Snake Park Trust, Raj Bhavan Post, Chennai 600 022, Tamil Nadu, India.

AC

India

FLYING SNAKE *Chrysopelea ornata*

CHECKLIST OF THE SNAKES OF INDIA

Since common names of snakes often differ according to an author's preference, it is important to cross-check the snake's scientific name. The capitalized name is the *Genus* which may contain a number of *species* with similar characters. Because some snakes seem to be in a state of evolution which makes them slightly different from others of their species, scientists may give them an extra name as *subspecies*. Snakes may vary in color and pattern; sometimes baby snakes will look very different from their parents. This is why herpetologists have a system of scale counting and examining teeth and hemipenes to confirm a snake's identity.

This checklist is based on the current classification of snakes, but changes do happen which can be confusing. For any snake names which have been changed since Malcolm Smith's book was published in 1943, we have also given the old name.

As far as possible the checklist is in the order given by Smith (1943). Species described post Smith have been added at the end of their genus listing. Species currently recognized, but considered synonyms/subspecies by Smith have been inserted next to their closest/nominate species. There have been several taxonomic changes since 1943; this is why some genera may seem out of place. We have listed the species in this order, as relationships of many genera as well as species remain poorly understood. The cut off date for the checklist was June 23, 2004.

Notes added in proof:

1. Though *Rhinophis oxyrhynchus* (Schneider, 1801) appears on some checklists of Indian Snakes, the type locality "Tranquebar" may be incorrect. We are unable to find any authentic Indian records and have not listed it.

2. The Groove-necked Keelback *Rhabdophis nuchalis* (Boulenger, 1891) has just been reported from India (Ahmed, M. F. et. al., in press).

3. Malhotra and Thorpe (2004) have proposed a new generic arrangement for pit vipers of the genus *Trimeresurus* based on morphological and molecular analyses. Species occurring in India and revised by them are: *Cryptelytrops albolabris*, *Cryptelytrops andersonii* [sic], *Cryptelytrops cantori*, *Cryptelytrops erythrurus*, *Cryptelytrops labialis*, *Cryptelytrops septentrionalis*, *Peltopelor macrolepis*, *Popeia popeiorum*, *Viridovipera medoensis*, *Viridovipera gumprechti* and *Viridovipera yunnanensis*.

A CHECKLIST OF THE SNAKES OF INDIA†

	Scientific name currently in use	Name in Smith's Fauna	Common name
	TYPHLOPIDAE Merrem, 1820		
1	*Typhlops porrectus* Stoliczka, 1871	*Typhlops porrectus*	Slender Worm Snake
2	*Ramphotyphlops braminus* (Daudin, 1803)	*Typhlops braminus*	Brahminy Worm Snake
3	*Typhlops pammeces* Günther, 1864	*Typhlops psammeces*	Günther's Worm Snake
4	*Typhlops thurstoni* Boettger, 1890	*Typhlops thurstoni*	Thurston's Worm Snake
5	*Typhlops jerdoni* Boulenger, 1890	*Typhlops jerdoni*	Jerdon's Worm Snake
6	*Typhlops tenuicollis* (Peters, 1864)	*Typhlops tenuicollis*	Slender-necked Worm Snake
7	*Typhlops diardii* Schlegel, 1839	*Typhlops diardi diardi*	Diard's Worm Snake
8	*Typhlops muelleri* Schlegel, 1839	*Typhlops diardi muelleri*	Müller's Worm Snake
9	*Typhlops oatesii* Boulenger, 1890	*Typhlops oatesi*	Oates' Worm Snake
10	*Typhlops bothriorhynchus* Günther, 1864	*Typhlops bothriorhynchus*	Assam Worm Snake
11	*Typhlops tindalli* Smith, 1943	*Typhlops tindalli*	Tindall's Worm Snake
12	*Typhlops beddomei* Boulenger, 1890	*Typhlops beddomei*	Beddome's Worm Snake
13	*Typhlops oligolepis* Wall, 1909	*Typhlops oligolepis*	Wall's Worm Snake
14	*Typhlops andamanensis* Stoliczka, 1871	*Typhlops andamanensis*	Andaman Worm Snake
15	*Grypotyphlops acutus* (Duméril & Bibron, 1844)	*Typhlops acutus*	Beaked Worm Snake
16	*Typhlops exiguus* Jan in: Jan & Sordelli, 1864		Jan's Worm Snake
17	*Typhlops loveridgei* Constable, 1949		Loveridge's Worm Snake
18	*Typhlops meszoelyi* Wallach, 1999		Darjeeling Worm Snake

† Indraneil Das, Frank Tillack, Patrick David, Andreas Gumprecht, Aaron Bauer, Van Wallach, Roy McDiarmid and Harold Voris have all contributed to this checklist.

	Scientific name currently in use	Name in Smith's Fauna	Common name
	LEPTOTYPHLOPIDAE Stejneger, 1892[1]		
19	*Leptotyphlops blanfordii* (Boulenger, 1890) *Leptotyphlops blanfordii blanfordii* (Boulenger, 1890)	*Leptotyphlops blanfordii*	Sindh Thread Snake Blanford's Thread Snake
	UROPELTIDAE Müller, 1832		
20	*Melanophidium punctatum* Beddome, 1871	*Melanophidium punctatum*	Pied-belly Shieldtail
21	*Melanophidium bilineatum* Beddome, 1870	*Melanophidium bilineatum*	Yellow-striped Shieldtail
22	*Melanophidium wynaudense* (Beddome, 1863)	*Melanophidium wynaudense*	Wynad Shieldtail
23	*Platyplectrurus trilineatus* (Beddome, 1867)	*Platyplectrurus trilineatus*	Three-lined Shieldtail
24	*Platyplectrurus madurensis* Beddome, 1877	*Platyplectrurus madurensis*	Madurai Shieldtail
25	*Teretrurus sanguineus* (Beddome, 1867)	*Teretrurus sanguineus*	Western Shieldtail
26	*Brachyophidium rhodogaster* Wall, 1921	*Teretrurus rhodogaster*	Wall's Shieldtail
27	*Plectrurus perrotetii* Duméril, 1851	*Plectrurus perroteti*	Perrotet's Shieldtail
28	*Plectrurus guentheri* (Beddome, 1863)	*Plectrurus guentheri*	Purple Shieldtail
29	*Plectrurus aureus* Beddome, 1880	*Plectrurus aureus*	Golden Shieldtail
30	*Plectrurus canaricus* (Beddome, 1870)	*Plectrurus canaricus*	Kanara Shieldtail
31	*Uropeltis ellioti* (Gray, 1858)	*Uropeltis ellioti*	Elliot's Shieldtail
32	*Uropeltis nitida* (Beddome, 1878)	*Uropeltis nitidus*	Cochin Shieldtail
33	*Uropeltis ocellata* (Beddome, 1863)	*Uropeltis ocellatus*	Nilgiri Shieldtail
34	*Uropeltis dindigalensis* (Beddome, 1877)	*Uropeltis dindigalensis*	Dindigul Shieldtail
35	*Uropeltis beddomii* (Günther, 1862)	*Uropeltis beddomei*	Beddome's Shieldtail

[1] Though *Leptotyphlops macrorhynchus* is restricted to Northeast Africa, it appears on most checklists of Indian snakes. As we are unable to find an authentic Indian record, we have not listed it.

	Scientific name currently in use	Name in Smith's Fauna	Common name
36	*Uropeltis macrorhyncha* (Beddome, 1877)	*Uropeltis macrorhynchus*	Anamalai Shieldtail
37	*Uropeltis woodmasoni* (Theobald, 1876)	*Uropeltis wood-masoni*	Black-bellied Shieldtail
38	*Uropeltis macrolepis* (Peters, 1862)	*Uropeltis macrolepis*	Large-scaled Shieldtail
	Uropeltis macrolepis macrolepis (Peters, 1862)		Large-scaled Shieldtail
	Uropeltis macrolepis mahableshwarensis Chari, 1955		Mahableshwar Shieldtail
39	*Uropeltis ceylanica* Cuvier, 1829[2]	*Uropeltis ceylanicus*	Kerala Shieldtail
40	*Uropeltis arcticeps* (Günther, 1875)	*Uropeltis arcticeps*	Tirunelveli Shieldtail
	Uropeltis arcticeps arcticeps (Günther, 1875)	*Uropeltis a. arcticeps*	Tirunelveli Shieldtail
	Uropeltis arcticeps madurensis (Beddome, 1878)	*Uropeltis a. madurensis*	Periyar Shieldtail
41	*Uropeltis rubromaculata* (Beddome, 1867)	*Uropeltis rubromaculatus*	Red-spotted Shieldtail
42	*Uropeltis rubrolineata* (Günther, 1875)	*Uropeltis rubrolineatus*	Red-lined Shieldtail
43	*Uropeltis phipsonii* (Mason, 1888)	*Uropeltis phipsoni*	Phipson's Shieldtail
44	*Uropeltis myhendrae* (Beddome, 1886)	*Uropeltis myhendrae*	Barred Shieldtail
45	*Uropeltis broughami* (Beddome, 1878)	*Uropeltis broughami*	Sirumalai Shieldtail
46	*Uropeltis maculata* (Beddome, 1878)	*Uropeltis maculatus*	Red-sided Shieldtail
47	*Uropeltis petersi* (Beddome, 1878)	*Uropeltis petersi*	Peters' Shieldtail
48	*Uropeltis liura* (Günther, 1875)	*Uropeltis liura*	Ashambu Shieldtail
49	*Uropeltis pulneyensis* (Beddome, 1863)	*Uropeltis pulneyensis*	Palni Shieldtail
50	*Uropeltis smithi* Gans, 1966	*Uropeltis grandis*	Violet Shieldtail
51	*Rhinophis sanguineus* Beddome, 1863	*Rhinophis sanguineus*	Red-bellied Shieldtail
52	*Rhinophis fergusonianus* Boulenger, 1896	*Rhinophis fergusonianus*	Cardamom Shieldtail
53	*Rhinophis travancoricus* Boulenger, 1893	*Rhinophis travancoricus*	Travancore Shieldtail

[2] Named after an incorrect type locality "Ceylan". No specimens ever reported from Sri Lanka. Distribution includes Kerala.

	Scientific name currently in use	Name in Smith's Fauna	Common name
	XENOPELTIDAE Bonaparte, 1845		
54	*Xenopeltis unicolor* Boie, 1827	*Xenopeltis unicolor*	Sunbeam Snake
	PYTHONIDAE Fitzinger, 1826		
55	*Python molurus* (Linnaeus, 1758)	*Python molurus*	Rock Python
	Python molurus molurus (Linnaeus, 1758)	*Python m. molurus*	Indian Rock Python
	Python molurus bivittatus Kuhl, 1820	*Python m. bivittatus*	Burmese Python
56	*Python reticulatus* (Schneider, 1801)	*Python reticulatus*	Reticulated Python
	BOIDAE Gray, 1825		
57	*Gongylophis conicus* (Schneider, 1801)	*Eryx conicus*	Common Sand Boa
	Gongylophis conicus conicus (Schneider, 1801)		
58	*Eryx johnii* (Russell, 1801)	*Eryx johni johni*	Red Sand Boa
	Eryx johnii johnii (Russell, 1801)		Eastern Red Sand Boa
59	*Eryx whitakeri* Das, 1991[3]		Whitaker's Boa
	ACROCHORDIDAE Bonaparte, 1831		
60	*Acrochordus granulatus* (Schneider, 1799)	*Acrochordus granulatus*	File Snake
	COLUBRIDAE Oppel, 1811[4]		
61	*Pareas macularius* Theobald, 1868	*Pareas macularius*	Darjeeling Snail-eater

[3] It is probable that in future, this species may be assigned to *Gongylophis* as its morphological characters are closer to *Gongylophis conicus* (Schneider, 1801) than to *Eryx johnii* (Russell, 1801). As no supportive data has been published, we retain it under *Eryx*.

[4] *Hemorrhois* (*previously Coluber*) *ravergieri* and *Homalopsis buccata* appear on most checklists. We are unable to find authentic Indian records and list neither.

	Scientific name currently in use	Name in Smith's Fauna	Common name
62	*Pareas monticola* (Cantor, 1839)	*Pareas monticola*	Assam Snail-eater
63	*Stoliczkia khasiensis* Jerdon, 1870	*Stoliczkaia khasiensis*	Khasi Earth Snake
64	*Elaphe prasina* (Blyth, 1854)	*Elaphe prasina*	Green Trinket Snake
65	*Elaphe frenata* (Gray, 1853)	*Elaphe frenata*	Khasi Hills Trinket Snake
66	*Gonyosoma oxycephalum* (Boie, 1827)	*Elaphe oxycephala*	Red-tailed Trinket Snake
67	*Coelognathus radiatus* (Boie, 1827)	*Elaphe radiata*	Copper-headed Trinket Snake
68	*Coelognathus flavolineatus* (Schlegel, 1837)	*Elaphe flavolineata*	Black-tailed Trinket Snake/ Yellow-striped Trinket Snake[5]
69	*Coelognathus helena* (Daudin, 1803)	*Elaphe helena*	Trinket Snake
	Coelognathus helena helena (Daudin, 1803)		Common Trinket Snake
	Coelognathus helena monticollaris (Schulz, 1992)		Montane Trinket Snake
70	*Orthriophis taeniurus* (Cope, 1861)	*Elaphe taeniura*	Striped Trinket Snake
	Orthriophis taeniurus yunnanensis (Anderson, 1879)		Yunnan Striped Trinket Snake
71	*Orthriophis hodgsonii* (Günther, 1860)	*Elaphe hodgsoni*	Himalayan Trinket Snake
72	*Orthriophis cantoris* (Cantor, 1839)	*Elaphe cantoris*	Eastern Trinket Snake
73	*Elaphe porphyracea* (Cantor, 1839)	*Elaphe porphracea*	Banded Trinket Snake
	Elaphe porphyracea porphyracea (Cantor, 1839)		Western Banded Trinket Snake
74	*Euprepiophis mandarinus* (Cantor, 1840)	*Elaphe mandarina*	Mandarin Trinket Snake
75	*Ptyas mucosa* (Linnaeus, 1758)	*Ptyas mucosus*	Indian Rat Snake
	Ptyas mucosa mucosa (Linnaeus, 1758)		Indian Rat Snake
76	*Ptyas korros* (Schlegel, 1837)	*Ptyas korros*	Indo-Chinese Rat Snake
77	*Ptyas nigromarginata* (Blyth, 1854)	*Zaocys nigromarginatus*	Green Rat Snake
78	*Coluber ventromaculatus* (Gray, 1834)	*Coluber ventromaculatus*	Glossy-bellied Racer

[5] Though the second common name is more widely used, Indian populations do not have a yellow stripe.

	Scientific name currently in use	Name in Smith's Fauna	Common name
79	*Coluber ladacensis* (Anderson, 1871)[6]	*Coluber rhodorhachis*	Eastern Cliff Racer
80	*Argyrogena fasciolata* (Shaw, 1802)	*Coluber fasciolatus*	Banded Racer
81	*Coluber gracilis* (Günther, 1862)	*Coluber gracilis*	Slender Racer
82	*Coluber vittacaudatus* Blyth, 1854[7]		Darjeeling Racer
83	*Coluber bholanathi* Sharma, 1976		Nagarjunasagar Racer
84	*Spalerosophis diadema* (Schlegel, 1837)	*Coluber diadema diadema*	Blotched Royal Snake
85	*Spalerosophis atriceps* Fischer, 1885	*Coluber diadema atriceps*	Black-headed Royal Snake
86	*Spalerosophis arenarius* (Boulenger, 1890)	*Coluber arenarius*	Red-spotted Royal Snake
87	*Cyclophiops doriae* Boulenger, 1888	*Ophyodrys doriae*	Green Snake
88	*Liopeltis frenata* (Günther, 1858)	*Liopeltis frenatus*	Günther's Stripe-necked Snake
89	*Liopeltis stoliczkae* (Sclater, 1891)	*Liopeltis stoliczkae*	Stoliczka's Stripe-necked Snake
90	*Liopeltis calamaria* (Günther, 1858)	*Liopeltis calamaria*	Lesser Stripe-necked Snake
91	*Gongylosoma nicobariense* (Stoliczka, 1870)	*Liopeltis nicobariensis*	Nicobar Stripe-necked Snake
92	*Liopeltis rappii* (Günther, 1860)	*Liopeltis rappi*	Himalayan Stripe-necked Snake
93	*Lytorhynchus paradoxus* (Günther, 1875)	*Lytorhynchus paradoxus*	Sind Awl-headed Snake
94	*Coronella brachyura* (Günther, 1866)	*Coronella brachyura*	Indian Smooth Snake
95	*Oligodon cyclurus* (Cantor, 1839)	*Oligodon cyclurus*	Cantor's Kukri Snake
	Oligodon cyclurus cyclurus (Cantor, 1839)		Cantor's Kukri Snake
96	*Oligodon dorsolateralis* (Wall, 1910)	*Oligodon cyclurus*	Side-striped Kukri Snake
97	*Oligodon kheriensis* Acharji & Ray, 1936	*Oligodon cyclurus*	Coral Kukri Snake
98	*Oligodon juglandifer* (Wall, 1909)	*Oligodon juglandifer*	Darjeeling Kukri Snake

[6] Genus partially revised. Schätti & Utiger (2001) use *Platyceps ladacensis* (Anderson, 1871) and *Platyceps ventromaculatus* (Gray, 1834). They restrict *Coluber* to North America. It is unclear where *Coluber gracilis* (Günther, 1862); *Coluber bholanathi* Sharma, 1976 and *Coluber vittacaudatus* Blyth, 1854 should be placed. The genus *Coluber* is retained pending publication of a complete revision.

[7] *Fide* Das, I. 2003. *J. Bombay Nat. Hist. Soc.*100 (2&3): 446-501.

	Scientific name currently in use	Name in Smith's Fauna	Common name
99	*Oligodon albocinctus* (Cantor, 1839)	*Oligodon albocinctus*	White-barred Kukri Snake
100	*Oligodon melanozonatus* Wall, 1922[8]	*Oligodon melazonotus*	Wall's Kukri Snake
101	*Oligodon cinereus* (Günther, 1864)	*Oligodon cinereus*	Black-barred Kukri Snake
102	*Oligodon woodmasoni* (Sclater, 1891)	*Oligodon woodmasoni*	Yellow-striped Kukri Snake
103	*Oligodon theobaldi* (Günther, 1868)	*Oligodon theobaldi*	Mandalay Kukri Snake
104	*Oligodon venustus* (Jerdon, 1853)	*Oligodon venustus*	Black-spotted Kukri Snake
105	*Oligodon travancoricus* Beddome, 1877	*Oligodon travancoricus*	Travancore Kukri Snake
106	*Oligodon taeniolatus* (Jerdon, 1853)	*Oligodon taeniolatus*	Russell's Kukri Snake
	Oligodon taeniolatus fasciatus (Günther, 1864)		Indian Streaked Kukri Snake
107	*Oligodon arnensis* (Shaw, 1802)	*Oligodon arnensis*	Common Kukri Snake
108	*Oligodon calamarius* (Linnaeus, 1754)	*Oligodon calamarius*	Reed-like Kukri Snake
109	*Oligodon erythrorhachis* Wall, 1910	*Oligodon erythrorhachis*	Red-striped Kukri Snake
110	*Oligodon melaneus* Wall, 1909	*Oligodon melaneus*	Black Kukri Snake
111	*Oligodon affinis* Günther, 1862	*Oligodon affinis*	Western Kukri Snake
112	*Oligodon brevicaudus* (Günther, 1862)	*Oligodon brevicauda*	Striped Kukri Snake
113	*Oligodon erythrogaster* Boulenger, 1907	*Oligodon erythrogaster*	Red-bellied Kukri Snake
114	*Oligodon catenatus* (Blyth, 1854)	*Oligodon catenata*	Northeastern Kukri Snake
115	*Oligodon dorsalis* (Gray, 1834)	*Oligodon dorsalis*	Spot-tailed Kukri Snake
116	*Oligodon nikhili* Whitaker & Dattatri, 1982		Nikhil's Kukri Snake
117	*Calamaria pavimentata* (Duméril, Bibron & Duméril, 1854)	*Calamaria pavimentata*	Collared Reed Snake
118	*Dendrelaphis pictus* (Gmelin, 1789)	*Ahaetulla ahaetulla*	Painted Bronzeback Tree Snake
	Dendrelaphis pictus pictus (Gmelin, 1789)	*Ahaetulla a. ahaetulla*	Common Painted Bronzeback Tree Snake
	Dendrelaphis pictus andamanensis (Anderson, 1871)	*Ahaetulla a. andamanensis*	Andaman Painted Bronzeback Tree Snake

[8] *Oligodon melanozonatus* Wall, 1922. Rec. Ind. Mus. xxiv, p. 29. All subsequent spellings are unjustified.

	Scientific name currently in use	Name in Smith's Fauna	Common name
119	*Dendrelaphis cyanochloris* (Wall, 1921)	*Ahaetulla cyanochloris*	Green Bronzeback Tree Snake
120	*Dendrelaphis grandoculis* (Boulenger, 1890)	*Ahaetulla grandoculis*	Large-eyed Bronzeback Tree Snake
121	*Dendrelaphis gorei* (Wall, 1910)	*Ahaetulla gorei*	Himalayan Bronzeback Tree Snake
122	*Dendrelaphis tristis* (Daudin, 1803)	*Ahaetulla tristis*	Common Bronzeback Tree Snake
123	*Dendrelaphis subocularis* (Boulenger, 1888)	*Ahaetulla subocularis*	Mountain Bronzeback Tree Snake
124	*Dendrelaphis humayuni* Tiwari & Biswas, 1973		Nicobar Bronzeback Tree Snake
125	*Chrysopelea ornata* (Shaw, 1802)	*Chrysopelea ornata*	Ornate Flying Snake
	Chrysopelea ornata ornata (Shaw, 1802)		Indian Ornate Flying Snake
	Chrysopelea ornata ornatissima Werner, 1925		Southeast Asian Flying Snake
126	*Chrysopelea paradisi* Boie, 1827	*Chrsysopelea paradisi*	Paradise Flying Snake
	Chrysopelea paradisi paradisi Boie, 1827		Paradise Flying Snake
127	*Lycodon travancoricus* (Beddome, 1870)	*Lycodon travancoricus*	Travancore Wolf Snake
128	*Lycodon laoensis* (Günther, 1864)	*Lycodon laoensis*	Laotian Wolf Snake
129	*Lycodon jara* (Shaw, 1802)	*Lycodon jara*	Yellow-speckled Wolf Snake
130	*Lycodon striatus* (Shaw, 1802)	*Lycodon striatus*	Barred Wolf Snake
	Lycodon striatus striatus (Shaw, 1802)		Northern Barred Wolf Snake
131	*Lycodon flavomaculatus* (Wall, 1907)	*Lycodon flavomaculatus*	Yellow-spotted Wolf Snake
132	*Lycodon mackinnoni* (Wall, 1906)	*Lycodon mackinnoni*	Mackinnon's Wolf Snake
133	*Lycodon aulicus* (Linnaeus, 1758)	*Lycodon aulicus*	Common Wolf Snake
134	*Lycodon capucinus* Boie, 1827	*Lycodon aulicus capucinus*	Oriental Wolf Snake
135	*Lycodon fasciatus* (Anderson, 1879)	*Lycodon fasciatus*	Banded Wolf Snake

NOTE: Though *Dendrelaphis bifrenalis* and *Dendrelaphis caudolineolata* appear on some old checklists of Indian snakes, these are Sri Lankan species. As we are uncertain of their status in India, we have not listed either.

	Scientific name currently in use	Name in Smith's Fauna	Common name
136	*Lycodon tiwarii* Biswas & Sanyal, 1965		Tiwari's Wolf Snake
137	*Lycodon zawi* Slowinski, Pawar, Win, Thin, Gyi, Oo & Tun, 2001		Zaw's Wolf Snake
138	*Dinodon septentrionalis* (Günther, 1858)	*Dinodon septentrionalis*	Günther's False Wolf Snake
139	*Dinodon gammiei* (Blanford, 1878)	*Dinodon gammiei*	Sikkim False Wolf Snake
140	*Dryocalamus nympha* (Daudin, 1803)	*Dryocalamus nympha*	Bridal Snake
141	*Dryocalamus gracilis* (Günther, 1864)	*Dryocalamus gracilis*	Slender Bridal Snake
142	*Sibynophis collaris* (Gray, 1853)	*Sibynophis collaris*	Collared Black-headed Snake
143	*Sibynophis subpunctatus* (Duméril, Bibron & Duméril, 1854)	*Sibynophis subpunctatus*	Duméril's Black-headed Snake
144	*Sibynophis bistrigatus* (Günther, 1868)[9]	*Sibynophis bistrigatus*	Pegu Black-headed Snake
145	*Sibynophis sagittarius* (Cantor, 1839)	*Sibynophis sagittarius*	Cantor's Black-headed Snake
146	*Amphiesma venningi* (Wall, 1910)	*Natrix venningi*	Venning's Keelback
147	*Amphiesma parallelum* (Boulenger, 1890)	*Natrix parallela*	Boulenger's Striped Keelback
148	*Amphiesma nicobarense* (Sclater, 1891)	*Natrix nicobarensis*[10]	Nicobar Keelback
149	*Amphiesma khasiense* (Boulenger, 1890)	*Natrix khasiensis*	Khasi Hills Keelback
150	*Amphiesma modestum* (Günther, 1875)	*Natrix modesta*	Günther's Keelback
151	*Amphiesma pealii* (Sclater, 1891)	*Natrix peali*	Peal's Keelback
152	*Amphiesma xenura* (Wall, 1907)	*Natrix xenura*	Cherrapunji Keelback
153	*Xenochrophis punctulatus* (Günther, 1858)	*Natrix punctulata*	Spotted Keelback
154	*Xenochrophis piscator* (Schneider, 1799)	*Natrix piscator piscator*	Checkered Keelback
155	*Xenochrophis sanctijohannis* (Boulenger, 1890)	*Natrix piscator piscator (sancti-johannis)*	St. John's Keelback

[9] Wall, 1923. Single Indian record from Kamorta Island, Nicobar Group of Islands by Roepstorff needs reconfirmation.

[10] *Natrix nicobariensis* in Smith's systematic index, but appears as *Natrix nicobarensis* in the species description.

	Scientific name currently in use	Name in Smith's Fauna	Common name
156	*Xenochrophis flavipunctatus* (Hallowell, 1860) *Xenochrophis flavipunctatus flavipunctatus* (Hallowell, 1860)	*Natrix piscator flavipunctata*	Yellow-spotted Keelback
157	*Xenochrophis melanzostus* (Gravenhorst, 1807)	*Natrix piscator melanzostus*	Andaman Keelback
158	*Xenochrophis trianguligerus* (Boie, 1827)	*Natrix trianguligera*	Triangle-spotted Keelback
159	*Sinonatrix percarinata percarinata* (Boulenger, 1899)	*Natrix percarinata*	Chinese Keelback
160	*Rhabdophis himalayanus* (Günther, 1864)	*Natrix himalayana*	Himalayan Keelback
161	*Rhabdophis subminiatus* (Schlegel, 1837)[11]	*Natrix subminiata*	Red-necked Keelback
162	*Amphiesma stolatum* (Linnaeus, 1758)	*Natrix stolata*	Striped Keelback
163	*Amphiesma platyceps* (Blyth, 1854)	*Natrix platyceps*	Himalayan Mountain Keelback
164	*Amphiesma sieboldii* (Günther, 1860)[12]	*Natrix platyceps*	Siebold's Keelback
165	*Amphiesma beddomei* (Günther, 1864)	*Natrix beddomei*	Beddome's Keelback
166	*Amphiesma monticola* (Jerdon, 1853)	*Natrix monticola*	Hill Keelback
167	*Pseudoxenodon macrops* (Blyth, 1854) *Pseudoxenodon macrops macrops* (Blyth, 1854)	*Pseudoxenodon macrops*	False Cobra False Cobra
168	*Macropisthodon plumbicolor* (Cantor, 1839) *Macropisthodon plumbicolor plumbicolor* (Cantor, 1839)	*Macropisthodon plumbicolor*	Green Keelback Indian Green Keelback
169	*Xenochrophis cerasogaster* (Cantor, 1839)	*Xenochrophis cerasogaster*	Dark-bellied Marsh Snake
170	*Atretium schistosum* (Daudin, 1803)	*Atretium schistosum*	Olive Keelback
171	*Trachischium monticola* (Cantor, 1839)	*Trachischium monticola*	Assam Oriental Slender Snake
172	*Trachischium fuscum* (Blyth, 1854)	*Trachischium fuscum*	Darjeeling Oriental Slender Snake
173	*Trachischium guentheri* Boulenger, 1890	*Trachischium guentheri*	Günther's Oriental Slender Snake

[11] We are unable to determine with certainty the subspecies of *Rhabdophis subminiatus* found in India. Specimens examined show characters of both *Rhabdophis s. helleri* (Schmidt, 1925) and *Rhabdophis s. subminiatus* (Schlegel, 1837).

[12] The validity of this species is doubted by some authorities.

	Scientific name currently in use	Name in Smith's Fauna	Common name
174	*Trachischium tenuiceps* (Blyth, 1854)	*Trachischium tenuiceps*	Orange-bellied Oriental Slender Snake
175	*Trachischium laeve* Peracca, 1904	*Trachischium laeve*	Olive Oriental Slender Snake
176	*Rhabdops olivaceus* (Beddome, 1863)	*Rhabdops olivaceus*	Olive Forest Snake
177	*Rhabdops bicolor* (Blyth, 1854)	*Rhabdops bicolor*	Yellow-bellied Forest Snake
178	*Blythia reticulata* (Blyth, 1854)	*Blythia reticulata*	Iridescent Snake
179	*Xylophis perroteti* (Duméril, Bibron & Duméril, 1854)	*Xylophis perroteti*	Striped Narrow-headed Snake
180	*Xylophis stenorhynchus* (Günther, 1875)	*Xylophis stenorhynchus*	Günther's Narrow-headed Snake
181	*Boiga multomaculata* (Boie, 1827)	*Boiga multimaculata*	Large-spotted Cat Snake
182	*Boiga ochracea* (Günther, 1868)	*Boiga ochracea*	Tawny Cat Snake
	Boiga ochracea ochracea (Günther, 1868)	*Boiga o. ochracea*	Common Tawny Cat Snake
	Boiga ochracea stoliczkae (Wall, 1909)	*Boiga o. ochracea*	Stoliczka's Tawny Cat Snake
	Boiga ochracea walli Smith, 1943	*Boiga o. walli*	Wall's Tawny Cat Snake
183	*Boiga trigonata* (Bechstein, 1802)	*Boiga trigonata*	Common Cat Snake
	Boiga trigonata trigonata (Bechstein, 1802)		Common Indian Cat Snake
184	*Boiga gokool* (Gray, 1834)	*Boiga gokool*	Eastern Cat Snake
185	*Boiga ceylonensis* (Günther, 1858)	*Boiga ceylonensis*	Ceylon Cat Snake
186	*Boiga beddomei* (Wall, 1909)	*Boiga ceylonensis*	Beddome's Cat Snake
187	*Boiga nuchalis* (Günther, 1875)	*Boiga ceylonensis*	Collared Cat Snake
188	*Boiga andamanensis* (Wall, 1909)	*Boiga ceylonensis*	Andaman Cat Snake
189	*Boiga quincunciata* (Wall, 1908)	*Boiga quincunciata*	Assam Cat Snake
190	*Boiga cyanea* (Duméril, Bibron & Duméril, 1854)	*Boiga cyanea*	Green Cat Snake
191	*Boiga multifasciata* (Blyth, 1861)	*Boiga multifasciata*	Many-banded Cat Snake
192	*Boiga ocellata* Kroon, 1973	*Boiga cynodon*	Eyed Cat Snake
193	*Boiga forsteni* (Duméril, Bibron & Duméril, 1854)	*Boiga forsteni*	Forsten's Cat Snake

	Scientific name currently in use	Name in Smith's Fauna	Common name
194	*Boiga dightoni* (Boulenger, 1894)	*Boiga dightoni*	Travancore Cat Snake
195	*Boiga wallachi* Das, 1997		Nicobar Cat Snake
196	*Psammophis schokari* (Forskål, 1775)	*Psammophis schokari*	Afro-Asian Sand Snake
197	*Psammophis condanarus* (Merrem, 1820)	*Psammophis condanarus condanarus*	Condanarus Sand Snake
198	*Psammophis longifrons* Boulenger, 1896	*Psammophis longifrons*	Stout Sand Snake
199	*Psammophis leithii* Günther, 1869	*Psammophis leithi*	Leith's Sand Snake
200	*Psammodynastes pulverulentus* (Boie, 1827)	*Psammodynastes pulverulentus*	Mock Viper
201	*Ahaetulla perroteti* (Duméril, Bibron & Duméril, 1854)	*Dryophis perroteti*	Bronze-headed Vine Snake
202	*Ahaetulla dispar* (Günther, 1864)	*Dryophis dispar*	Günther's Vine Snake
203	*Ahaetulla fronticincta* (Günther, 1858)	*Dryophis fronticinctus*	River Vine Snake
204	*Ahaetulla prasina* (Boie, 1827) *Ahaetulla prasina prasina* (Boie, 1827)	*Dryophis prasinus*	Short-nosed Vine Snake
205	*Ahaetulla nasuta* (Lacepède, 1789)	*Dryophis nasutus*	Common Vine Snake
206	*Ahaetulla pulverulenta* (Duméril, Bibron & Duméril, 1854)	*Dryophis pulverulentus*	Brown Vine Snake
207	*Enhydris plumbea* (Boie, 1827)	*Enhydris plumbea*	Plumbeous Smooth-scaled Water Snake
208	*Enhydris enhydris* (Schneider, 1799)	*Enhydris enhydris*	Common Smooth-scaled Water Snake
209	*Enhydris dussumierii* (Duméril, Bibron & Duméril, 1854)	*Enhydris dussumieri*	Dussumier's Smooth-scaled Water Snake
210	*Enhydris sieboldii* (Schlegel, 1837)	*Enhydris sieboldi*	Siebold's Smooth-scaled Water Snake
211	*Cerberus rynchops* (Schneider, 1799)	*Cerberus rhynchops*	Dog-faced Water Snake
212	*Gerarda prevostiana* (Eydoux & Gervais, 1837)	*Gerardia prevostiana*	Glossy Marsh Snake
213	*Fordonia leucobalia* (Schlegel, 1837)	*Fordonia leucobalia*	Crab-eating Water Snake
214	*Cantoria violacea* Girard, 1857	*Cantoria violacea*	Yellow-banded Mangrove Snake
215	*Elachistodon westermanni* Reinhardt, 1863	*Elachistodon westermanni*	Indian Egg-eater

	Scientific name currently in use	Name in Smith's Fauna	Common name
	ELAPIDAE Boie, 1827		
216	*Bungarus bungaroides* (Cantor, 1839)	*Bungarus bungaroides*	Himalayan Krait
217	*Bungarus fasciatus* (Schneider, 1801)	*Bungarus fasciatus*	Banded Krait
218	*Bungarus caeruleus* (Schneider, 1801)	*Bungarus caeruleus*	Common Krait
219	*Bungarus sindanus* Boulenger, 1897	*Bungarus caeruleus*	Sind Krait
	Bungarus sindanus sindanus Boulenger, 1897		Common Sind Krait
	Bungarus sindanus walli Wall, 1907	*Bungarus walli*	Wall's Sind Krait
220	*Bungarus andamanensis* Biswas & Sanyal, 1978	*Bungarus caeruleus*	Andaman Krait
221	*Bungarus niger* Wall, 1908	*Bungarus niger*	Black Krait
222	*Bungarus lividus* Cantor, 1839	*Bungarus lividus*	Lesser Black Krait
223	*Calliophis melanurus* (Shaw, 1802)	*Callophis melanurus*	Slender Coral Snake
	Calliophis melanurus melanurus (Shaw, 1802)		Indian Slender Coral Snake
224	*Calliophis nigrescens* (Günther, 1862)	*Callophis nigrescens*	Striped Coral Snake
225	*Calliophis beddomei* Smith, 1943	*Callophis beddomei*	Beddome's Coral Snake
226	*Sinomicrurus macclellandi* (Reinhardt, 1844)	*Callophis macclellandi*	Macclelland's Coral Snake
	Sinomicrurus macclellandi macclellandi (Reinhardt, 1844)		Macclelland's Coral Snake
	Sinomicrurus macclellandi univirgatus (Günther, 1858)	*Callophis m. univirgatus*	Macclelland's One-lined Coral Snake
227	*Calliophis bibroni* (Jan, 1858)	*Callophis bibroni*	Bibron's Coral Snake
228	*Naja naja* (Linnaeus, 1758)	*Naja naja naja*	Spectacled Cobra
229	*Naja kaouthia* Lesson, 1831	*Naja n. kaouthia*	Monocled Cobra
230	*Naja sagittifera* Wall, 1913	*Naja n. kaouthia*	Andaman Cobra
231	*Naja oxiana* (Eichwald, 1831)	*Naja n. oxiana*	Central Asian Cobra
232	*Ophiophagus hannah* (Cantor, 1836)	*Naja hannah*	King Cobra

	Scientific name currently in use	Name in Smith's Fauna	Common name
	HYDROPHIIDAE Boie, 1827		
233	*Laticauda laticaudata* (Linnaeus, 1758)	*Laticauda laticaudata*	Common Sea Krait
234	*Laticauda colubrina* (Schneider, 1799)	*Laticauda colubrina*	Yellow-lipped Sea Krait/ Colubrine Amphibious Sea Snake
235	*Kerilia jerdonii* (Gray, 1849) *Kerilia jerdonii jerdonii* (Gray, 1849)	*Kerilia jerdoni*	Jerdon's Sea Snake
236	*Praescutata viperina* (Schmidt, 1852)	*Praescutata viperina*	Viperine Sea Snake
237	*Enhydrina schistosa* (Daudin, 1803)	*Enhydrina schistosa*	Hook-nosed Sea Snake/ Beaked Sea Snake
238	*Hydrophis nigrocinctus* Daudin, 1803	*Hydrophis nigrocinctus*	Black-banded Sea Snake
239	*Hydrophis spiralis* (Shaw, 1802)	*Hydrophis spiralis*	Yellow Sea Snake
240	*Hydrophis cyanocinctus* Daudin, 1803	*Hydrophis cyanocinctus*	Annulated Sea Snake/ Blue-banded Sea Snake
241	*Hydrophis obscurus* Daudin, 1803	*Hydrophis obscurus*	Estuarine Sea Snake
242	*Hydrophis stricticollis* Günther, 1864	*Hydrophis stricticollis*	Bengal Sea Snake/ Collared/ Narrow-necked Sea Snake
243	*Hydrophis ornatus* (Gray, 1842) *Hydrophis ornatus ornatus* (Gray, 1842)	*Hydrophis ornatus ornatus*	Cochin Banded Sea Snake Ornate Sea Snake
244	*Hydrophis lapemoides* (Gray, 1849)	*Hydrophis lapemoides*	Persian Gulf Sea Snake
245	*Hydrophis mamillaris* (Daudin, 1803)	*Hydrophis mamillaris*	Bombay Gulf Sea Snake/ Bombay Broad-banded Sea Snake
246	*Hydrophis caerulescens* (Shaw, 1802)	*Hydrophis caerulescens*	Malacca Sea Snake/ Blue Sea Snake/ Many-toothed Sea Snake
247	*Hydrophis fasciatus* (Schneider, 1799) *Hydrophis fasciatus fasciatus* (Schneider, 1799)	*Hydrophis fasciatus*	Banded Sea Snake

	Scientific name currently in use	Name in Smith's Fauna	Common name
248	*Lapemis curtus* (Shaw, 1802)	*Lapemis curtus*	Short Sea Snake
249	*Astrotia stokesii* (Gray, 1846)	*Astrotia stokesi*	Large-headed Sea Snake/ Stokes´ Sea Snake
250	*Hydrophis gracilis* (Shaw, 1802)	*Microcephalophis gracilis*	Common Small-headed Sea Snake
251	*Hydrophis cantoris* Günther, 1864	*Microcephalophis cantoris*	Cantor's Narrow-headed Sea Snake
252	*Pelamis platurus* (Linnaeus, 1766)	*Pelamis platurus*	Black & Yellow Sea Snake
	VIPERIDAE Boie, 1827		
253	*Daboia russelii* (Shaw & Nodder, 1797)	*Vipera russelli*	Russell's Viper
	Daboia russelii russelii (Shaw & Nodder, 1797)		Indian Russell's Viper
254	*Macrovipera lebetina* (Linnaeus, 1758)	*Vipera lebetina*	Levantine Viper
	Macrovipera lebetina cernovi (Chikin & Szczerbak, 1992)*		Cernov's Levantine Viper
255	*Echis carinatus* (Schneider, 1801)	*Echis carinatus*	Saw-scaled Viper
	Echis carinatus carinatus (Schneider, 1801)		South Indian Saw-scaled Viper
	Echis carinatus sochureki Stemmler, 1969[13]		Sochurek's Saw-scaled Viper
256	*Gloydius himalayanus* (Günther, 1864)	*Ancistrodon himalayanus*	Himalayan Pit Viper
257	*Hypnale hypnale* (Merrem, 1820)	*Ancistrodon hypnale*	Hump-nosed Pit Viper
258	*Trimeresurus macrolepis* Beddome, 1862	*Trimeresurus macrolepis*	Large-scaled Pit Viper
259	*Protobothrops mucrosquamatus* (Cantor, 1839)	*Trimeresurus mucrosquamatus*	Brown-spotted Pit Viper
260	*Ovophis monticola* (Günther, 1864)	*Trimeresurus monticola*	Mountain Pit Viper
	Ovophis monticola monticola (Günther, 1864)		Western Mountain Pit Viper
261	*Protobothrops jerdonii* (Günther, 1875)	*Trimeresurus jerdoni*	Jerdon's Pit Viper
	Protobothrops jerdonii jerdonii (Günther, 1875)		Jerdon's Pit Viper
262	*Trimeresurus malabaricus* (Jerdon, 1854)	*Trimeresurus malabaricus*	Malabar Pit Viper

[13] Some authorities consider *Echis sochureki* to be a distinct species. *See p. 408 for comment on subspecies.

	Scientific name currently in use	Name in Smith's Fauna	Common name
263	*Trimeresurus strigatus* Gray, 1842[14]	*Trimeresurus strigatus*	Horseshoe Pit Viper
264	*Trimeresurus gramineus* (Shaw, 1802)	*Trimeresurus gramineus*	Bamboo Pit Viper
265	*Trimeresurus yunnanensis* Schmidt, 1925	*Trimeresurus stejnegeri* (in part)	Yunnan Pit Viper
266	*Trimeresurus medoensis* Zhao in Zhao & Jiang, 1977	*Trimeresurus stejnegeri* (in part)	Medo Pit Viper
267	*Trimeresurus popeiorum popeiorum* Smith, 1937	*Trimeresurus popeorum*	Pope's Pit Viper
268	*Trimeresurus cantori* (Blyth, 1846)	*Trimeresurus cantori*	Cantor's Pit Viper
269	*Trimeresurus andersoni* Theobald, 1868	*Trimeresurus purpureomaculatus andersoni*	Andaman Pit Viper
270	*Trimeresurus erythrurus* (Cantor, 1839)	*Trimeresurus erythrurus*	Spot-tailed Pit Viper
271	*Trimeresurus albolabris* Gray, 1842	*Trimeresurus albolabris*	White-lipped Pit Viper
272	*Trimeresurus labialis* Fitzinger, 1867	*Trimeresurus labialis*	Nicobar Pit Viper
273	*Tropidolaemus huttoni* (Smith, 1949)		Hutton's Pit Viper
274	*Trimeresurus septentrionalis* Kramer, 1977		Himalayan White-lipped Pit Viper
275	*Trimeresurus gumprechti* David, Vogel, Pauwels & Vidal, 2002		Gumprecht's Green Pit Viper

[14] Though the predominant usage is now *Protobothrops strigatus* (Gray, 1842), we retain this species under *Trimeresurus*. Its affinities are almost certainly with the subgroup of Indian *Trimeresurus* species rather than with *Protobothrops*. It is likely that this species may be assigned to a different genus altogether.

INTRODUCTION TO SNAKES COVERED IN THIS BOOK

NON-VENOMOUS SNAKES

Worm Snakes (pp. 46-53)
Genera: *Typhlops, Ramphotyphlops, Grypotyphlops*

AC
G. acutus

Also called blind snakes, these are very small, slow, nocturnal burrowers with tiny eyes, short tails, and smooth shiny scales. Usually brown with no pattern. Found under rocks and logs, in termite mounds and ant nests, worm snakes feed on insects (largely ants and termites), their eggs, larvae and pupae. Females are larger than males; all seem to be egg layers and one species is parthenogenetic, the females producing fertile eggs without the help of a male. Totally harmless. Will defecate and poke with tail in defense if handled.

Shieldtail Snakes (pp. 54-75)
Genera: *Melanophidium, Teretrurus, Brachyophidium, Plectrurus, Uropeltis*

AC
U. m. macrolepis

Small, slow, mainly nocturnal burrowing snakes with small eyes, blunt tails, shiny iridescent scales, often with a bright yellow or red underside. Found under rocks and logs and in compost; feed on earthworms and insect larva. Most species are hill snakes restricted to the Western Ghats, though at least one species is found in the Eastern Ghats as far north as Orissa and in Madhya Pradesh. Rarely bite, may poke with tail and defecate in defense when handled. Most live bearers, some are thought to lay eggs. Females probably larger than males.

Sunbeam Snakes (pp. 76-77)
Genus: *Xenopeltis*

SG
X. unicolor

Highly iridescent, relatively stout-bodied, nocturnal burrowers that feed on amphibians, snakes, ground nesting birds and rodents. Lay eggs. Within India, only found on the Nicobar Islands.

Pythons (pp. 78-83)
Genus: *Python*

AC *P. m. molurus*

WW *P. reticulatus*

Pythons are very large, slow, mainly nocturnal snakes which climb and swim well. Constrictors, they feed mainly on mammals and birds, sometimes reptiles and amphibians. Pythons have long been killed for their skins and are today common in only a few parts of India. Of variable disposition, the Indian Rock Python is usually milder mannered than the Reticulated Python. Both can be tamed with gentle handling but the bite from a large one can cause serious injury. Egg layers. Females are larger than males.

Sand Boas (pp. 84-93)
Genera: *Gongylophis, Eryx*

AC *G. conicus*

Also called earth snakes, sand boas are slow, stocky, medium-sized burrowers which are nocturnal and live in any kind of soil, rat burrows and termite mounds. Powerful constrictors, they feed on amphibians, reptiles, rodents and birds which they catch by ambush. Distantly related to the boa constrictors of the Americas. The Common Sand Boa is a snappy snake that usually bites in self defence when handled. Whitaker's Boa and the Red Sand Boa have an even disposition and rarely bite. Live bearers. Females larger than males.

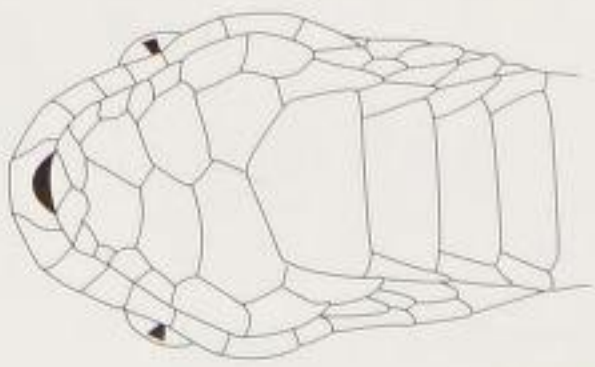
Amit C *E. johnii*

Snail-eaters (pp. 94-95)
Genus: *Pareas*

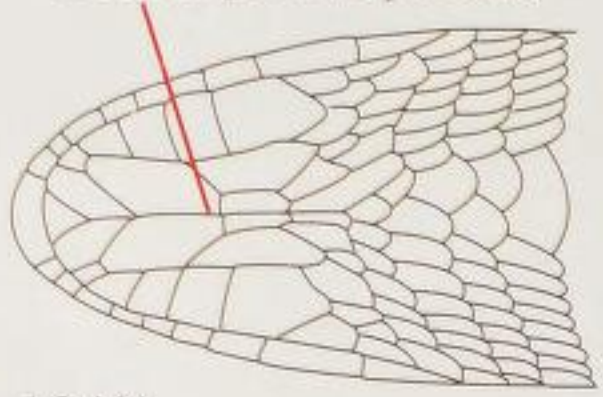
WG *P. macularius*

Snail-eaters are characterized by the lack of a mental groove on the middle of the throat. Small, slow, slender nocturnal snakes. Feed on snails and slugs. Some species are semi-arboreal, others are terrestrial. Egg layers.

Mental groove absent



Mental groove present



Ventral view of heads (after Smith, 1943)

File Snakes (pp. 96-97)
Genus: *Acrochordus*

AC
A. granulatus

Slow, sluggish, brackish water snakes. The stout body is covered by loose, rough skin that feels like sandpaper. Sometimes called wart snakes or elephant trunk snakes. File snakes feed on fish like gobies. Live bearers. Females larger than males.

Trinket Snakes (pp. 98-123)
Genera: *Elaphe, Gonyosoma, Coelognathus, Orthriophis, Euprepiophis*

AC
C. h. helena

Medium to large, relatively slow snakes which climb well, trinket snakes are named for their brilliant appearance. These are constrictors which prey on rodents and birds. While some may put on a dramatic open-mouthed display, they calm down with gentle handling. Egg layers. Females are larger than males.

Rat Snakes (pp.124-133)
Genus: *Ptyas*

AC
P. mucosa

Large, fast, terrestrial snakes, active by day, which climb well. The Indian Rat Snake is one of India's most common and familiar snakes. Rat snakes feed on rats, mice, frogs, toads, birds, lizards, and snakes. Excitable and likely to bite when picked up, but will calm down with gentle handling. Egg layers. Males larger than females.

Racers (pp. 134-145)
Genera: *Coluber*; *Argyrogena*

AC
A. fasciolata
AC
C. gracilis

Medium-sized, fast, terrestrial snakes, active by day. Young eat insects and frogs, adults prey on mice and lizards. Nervous snakes, which will bite when picked up. Some have toxic saliva which can cause swelling and pain but no serious bites reported. Egg layers. Male and female of the Banded Racer are of the same size; in the others, the male is larger.

Royal Snakes (pp. 146-151)
Genus: *Spalerosophis*

KB

S. atriceps

Medium to large, fast, terrestrial snakes which climb well. Mostly nocturnal, sometimes seen by day. Royal snakes feed on small rodents, birds and lizards which they either constrict, or pin down with a body coil. They are likely to hiss loudly when first caught, and may bite. Egg layers.

Stripe-necked Snakes (pp. 152-153)
Genus: *Liopeltis*

AC

L. frenata

Small to medium-sized, slender-bodied, terrestrial snakes. Usually found in rain forests or hilly areas. Natural history largely unknown. Possibly active by day and night. Diet of stripe-necked snakes found in India is unknown. At least two species in Borneo feed on spiders. Egg layers.

Awl-headed Snakes (pp. 154-155)
Genus: *Lytorhynchus*

KB

L. paradoxus

Small, slow snakes that are found in sandy or gravel deserts. The nostril is reduced to a narrow slit between two scales – an adaptation for burrowing in the sand. Nocturnal. Constrictors, they feed on geckos and other lizards, mice and arthropods. Egg layers.

Indian Smooth Snake (pp.156-159)
Genus: *Coronella*

AC

C. brachyura

Medium-sized, snakes which resemble adult Banded Racers. (Adult Banded Racers are usually unbanded). They are named for their smooth scales. This snake has a very limited distribution - mainly in arid, rocky parts of Maharashtra. Mostly terrestrial, but can climb well. They feed on geckos which they constrict. Egg layers.

Kukri Snakes (pp. 160-173)
Genus: *Oligodon*

O. taeniolatus AM

O. armensis AM

Small, slow, mainly nocturnal snakes which can burrow into sand or loose soil. Kukri snakes are named for their flattened, curved, sharp teeth, a specialization for slicing into reptile eggs. Besides reptile eggs, they feed on skinks, geckos, and mice which they may kill by constriction. While some kukris are mild-mannered, others will flatten out viper-like and strike vigorously in defense. Egg layers. In some species males are larger, in others females grow larger.

Bronzeback Tree Snakes (pp. 174-187)
Genus: *Dendrelaphis*

Dendrelaphis sp. AC

Medium-sized, slender, very fast, diurnal tree snakes that are named for the bronze-colored back that most species have. Feed on lizards, frogs, and occasionally small birds. Nervous in disposition, more likely to thrash about rather than bite when handled. Egg layers. Females larger than males.

Flying Snakes (pp. 188-191)
Genus: *Chrysopelea*

C. ornata AC

Medium-sized, slender, active, diurnal tree snakes that actually glide (rather than fly). They are excellent climbers. Rear fanged with mildly toxic saliva; no symptoms reported in humans. Constrictors that feed on geckos, rodents, bats, birds and occasionally small snakes. Egg layers.

Wolf Snakes (pp. 192-207)
Genus: *Lycodon*

L. aulicus AC

Small, slow-moving, nocturnal snakes with a great ability to climb. Wolf snakes are named for their enlarged upper front teeth, ideal for gripping their main prey - geckos. Wolf snakes are often mistaken for kraits but a careful look will reveal many differences. Wolf snakes are snappy if picked up. Egg layers. Females larger than males.

Bridal Snakes (pp. 208-209)
Genus: *Dryocalamus*

AdS *D. nympha*

Small, slow-moving, nocturnal snakes which climb well and resemble wolf snakes or kraits. Their food habits are poorly known. There is a record of one that had eaten a skink. Egg layers.

Black-headed Snakes (pp. 210-213)
Genus: *Sibynophis*

AC *S. subpunctatus*

Small, slender, diurnal, terrestrial snakes named for their black/darker colored heads. Also called many-toothed snakes (or polydonts) on account of the numerous teeth in the upper jaw. Duméril's Black-headed Snake bears a remarkable resemblance to the venomous Slender Coral Snake. Black-headed snakes feed on skinks, snakes, frogs and insects. Egg layers.

Keelbacks and False Cobras (pp. 214-261)
Genera: *Amphiesma, Xenochrophis, Macropisthodon, Atretium, Pseudoxenodon, Rhabdophis*

AC *A. stolatum*

AC *X. piscator*

AC *M. plumbicolor*

Small to medium-sized nocturnal/diurnal snakes, terrestrial and/or aquatic, this large group is named for the distinct fold or keel on most dorsal scales. Some species have enlarged, fang-like teeth in the back of the upper jaw to puncture toads and frogs which inflate to prevent being swallowed. While some, like the Striped Keelback and Green Keelback are slow and gentle, most of the true water snakes are fast and feisty biters in defense. The False Cobra will raise a hood when alarmed and can easily be mistaken for a venomous cobra. However, this keelback has an inverted chevron on the hood instead of a spectacled- or monocled-mark. Egg layers. Females larger than males.

Oriental Slender Snakes (pp. 262-263)

Genus: *Trachischium*

RH

T. laeve

Small, slow, slender, iridescent, terrestrial snakes that are poorly known. Some species are active in the early morning and evening. Males have keeled upper body scales near the tail base/anal region. This is an important taxomomic character. Egg layers.

Forest Snakes (pp. 264-267)

Genus: *Rhabdops*

AC

R. olivaceus

Small to medium-sized, slow, terrestrial forest snakes that are usually found close to streams. Natural history largely unknown. Recent observations indicate that one species – the Olive Forest Snake may be semi-aquatic. Nocturnal. Feed on worms and slugs.

Iridescent Snake (pp. 268-271)

Genus: *Blythia*

AC

B. reticulata

Small, slow, slender, iridescent, terrestrial snakes that are poorly known. A forest species that spends part of its time underground. Head, small eyes and smooth, glossy scales are adapations for burrowing. Egg layers.

Narrow-headed Snakes (pp. 272-275)

Genus: *Xylophis*

Sara

X. stenorhynchus

Small to medium-sized, slow, slender, cylindrical-bodied, burrowing snakes that are often found in evergreen forests. Belly scales almost as broad as belly. Feed on earthworms.

Cat Snakes (pp. 276-307)

Genus: *Boiga*

AC

B. trigonata

Medium to large, slow, nocturnal snakes, named for their large eyes with cat-like pupils. Feed on lizards, frogs and birds, paralyzing prey with venom too mild to have much effect on humans. Of variable temperament, most will demonstrate with open mouth when alarmed and bite if handled. Egg layers. Females larger than males.

Sand Snakes (pp. 308-317)
Genus: *Psammophis*

AC
P. leithii

Medium-sized, fast, terrestrial snakes, active by day. Good climbers, they eat frogs, lizards and small rodents. While not inclined to bite, their mildly toxic saliva can cause pain, swelling and bleeding. Egg layers. Sexes same size.

Mock Vipers (pp. 318-321)
Genus: *Psammodynastes*

AC
P. pulverulentus

Small to medium-sized snakes. Mostly terrestrial, often seen in low bushes. Nocturnal, sometimes seen by day. Despite its name, the Mock Viper has greatly enlarged, grooved rear fangs and toxic saliva. Should be treated with caution. If confronted, they will strike fiercely. They feed on skinks, geckos and sometimes small snakes. Live bearers. Females larger than males.

Vine Snakes (pp. 322-333)
Genus: *Ahaetulla*

WW *A. nasuta*

RW
A. prasina

Medium-sized to large, slow, slender, diurnal snakes with pointed snouts. Rear-fanged with a mildly toxic venom capable of paralyzing the birds, lizards and frogs they feed on. Vine snakes have eyes with horizontally elliptical pupils and binocular vision. Their eyes focus by changing the shape of the lens. This makes them adept hunters of cryptic lizards and frogs. Vine snakes are wrongly believed to be "eye peckers" and needlessly killed. They are sometimes mistaken for pit vipers which have eyes with vertical pupils. Will bite if handled. Live bearers. Females larger than males.

Smooth-scaled Water Snakes (pp. 334-339)
Genus: *Enhydris*

WW
E. enhydris

Small to medium-sized, swift water snakes. Active by day and night. Feed on fish and frogs. Have mildly toxic saliva. Most will bite readily when handled. Live bearers. Female larger than males.

Brackish Water Snakes (pp. 340-351)

Genera: *Cerberus, Gerarda, Fordonia, Cantoria*

AC

G. prevostiana

Medium-sized, slow, stocky water snakes. Usually active by night. Feed on fish, eels, crabs and shrimp. Have mildly toxic venom to subdue their prey. Differ in temperament, all may bite when first caught but generally calm down with gentle handling. Live bearers. Female larger than males.

VENOMOUS SNAKES

Kraits (pp. 352-363)

Genus: *Bungarus*

AC

B. caeruleus

AC

B. fasciatus

Medium to large nocturnal snakes, the name krait probably comes from the Hindi word for blackness. Slow, but capable of bursts of speed. Kraits feed on other snakes, lizards and mice, killing them with the most toxic venom of any Indian land snakes. Of variable temperament, the Banded Krait is mild-mannered for example, while the Common Krait causes many human fatalities. Egg layers. Males larger than females.

Coral Snakes (pp. 364-371)

Genera: *Calliophis, Sinomicrurus*

AC

C. melanurus

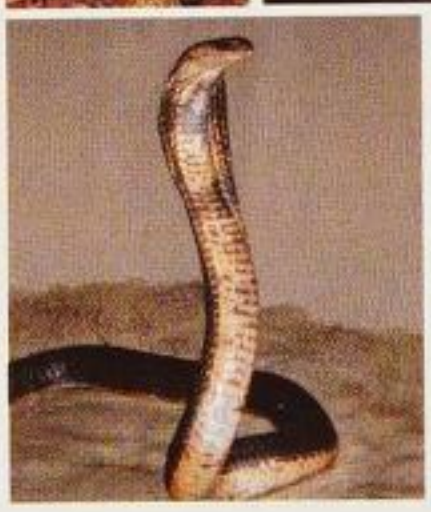
Small to medium, slow, slender, nocturnal snakes with brightly colored undersides giving them their name. Coral snakes feed on insects, skinks, geckos, other snakes and mice. They subdue prey with their venom about which very little is known. Coral snakes appear reluctant to bite but no chances should be taken; in Thailand human fatalities from coral snake bite have been reported. Egg layers. Sexes similar in size.

Cobras (pp. 372-383)

Genus: *Naja*

AC *N. naja*

AC *N. kaouthia*



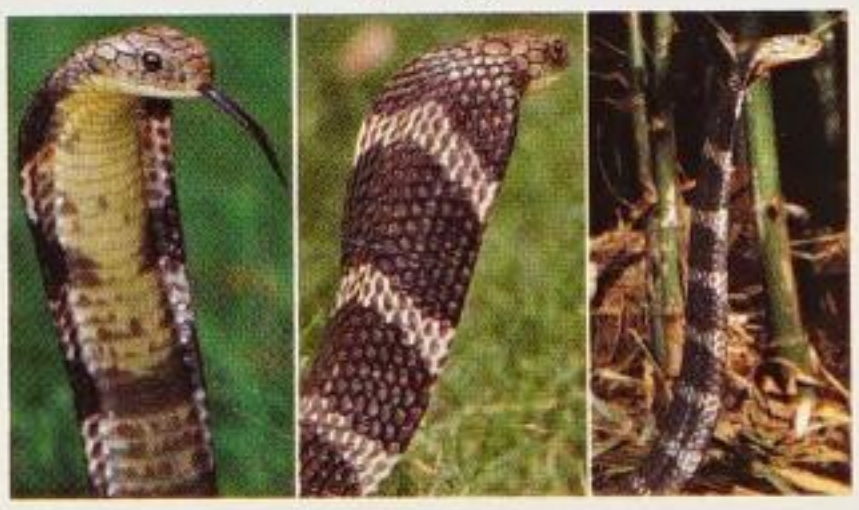
MOS *N. oxiana*

FT

Large, swift, nocturnal/diurnal snakes with the ability to rear up and spread a dramatic hood. The name cobra is derived from the Portuguese "Cobra de capello" – snake with a hood. Cobras feed on frogs, toads, rats, mice and occasionally snakes. The Monocellate Cobra also eats fish. Of variable temperament, cobras are common and cause a large number of fatalities with their toxic venom. Egg layers. Males larger than females.

King Cobra (pp. 384-385)

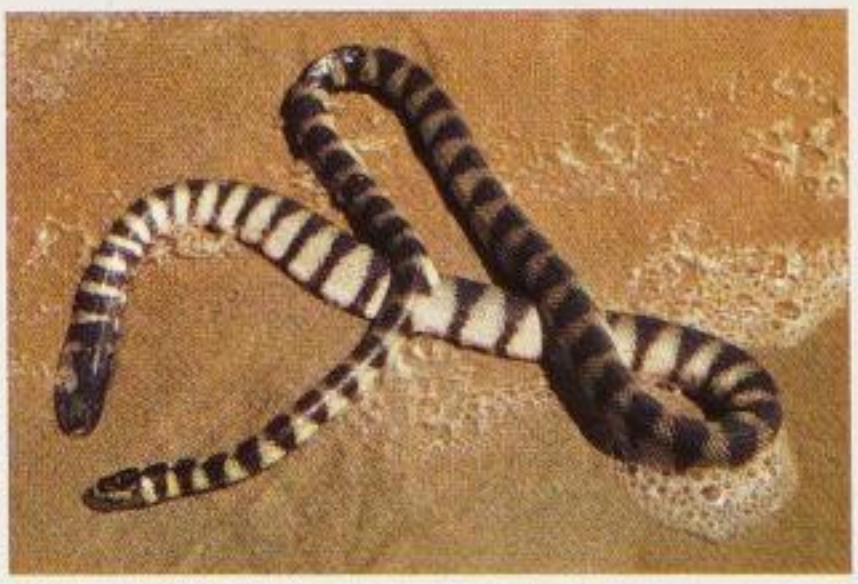
Genus: *Ophiophagus*



AC *O. hannah*

Extremely large, swift, nocturnal/diurnal snakes that when alarmed, spread a hood considerably narrower than that of the Spectacled and Monocled cobras. They climb and swim well. King cobras feed on snakes and monitor lizards. The female makes a nest of dried leaves – the only snake known to do so. Egg layers. Males larger than females.

Sea Snakes (pp. 386-403)



RW *H. caerulescens*

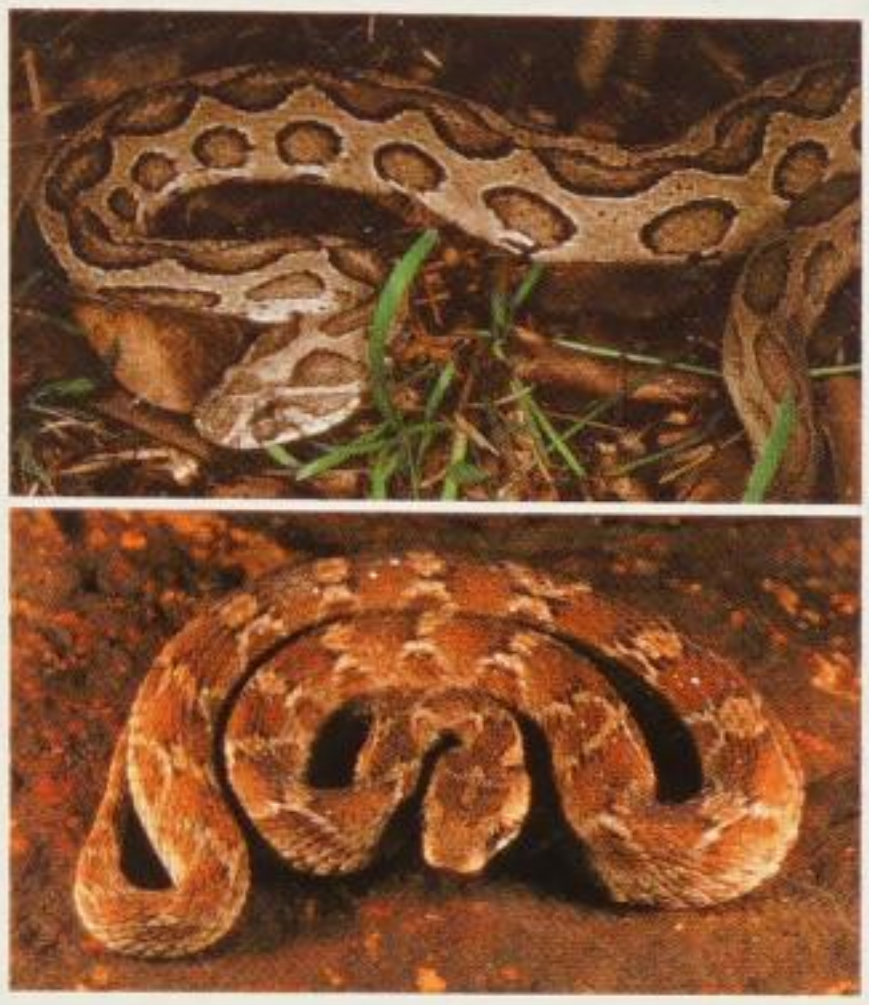
JCD *P. platurus*

Genera: *Laticauda, Kerilia, Enhydrina, Hydrophis, Lapemis, Astrotia, Pelamis*

Medium to large paddle-tailed, nocturnal/diurnal snakes. Fast swimmers, most are helpless on land. Feed on fish, eels and fish eggs. They produce very toxic venom to subdue prey; sea snakes are of variable temperament but are generally even-tempered and cause few bites or fatalities. Antivenom is made at Commonwealth Serum Lab, Australia. Only two Indian species come ashore to lay eggs, the rest are live bearers and never leave the sea. Some sea snakes will venture 50 km (30 miles) upriver. Females larger than males.

Vipers (pp. 404-413)

Genera: *Daboia, Macrovipera, Echis*



RW *D. russelii*

AC *E. carinatus*

Small to large nocturnal/diurnal snakes which feed on rodents, birds and (in the case of the Saw-scaled Viper – arthropods). Of variable temperament, slow-moving but capable of bursts of speed. All vipers can strike fast, have long fangs and very toxic venom. Russell's Viper is thought to cause more human fatalities than even the cobras. Live bearers. Males larger in Russell's and Levantine Viper; females larger in Saw-scaled Viper.

Pit Vipers (pp. 414-469)

Genera: *Gloydius, Hypnale, Trimeresurus, Protobothrops, Ovophis*

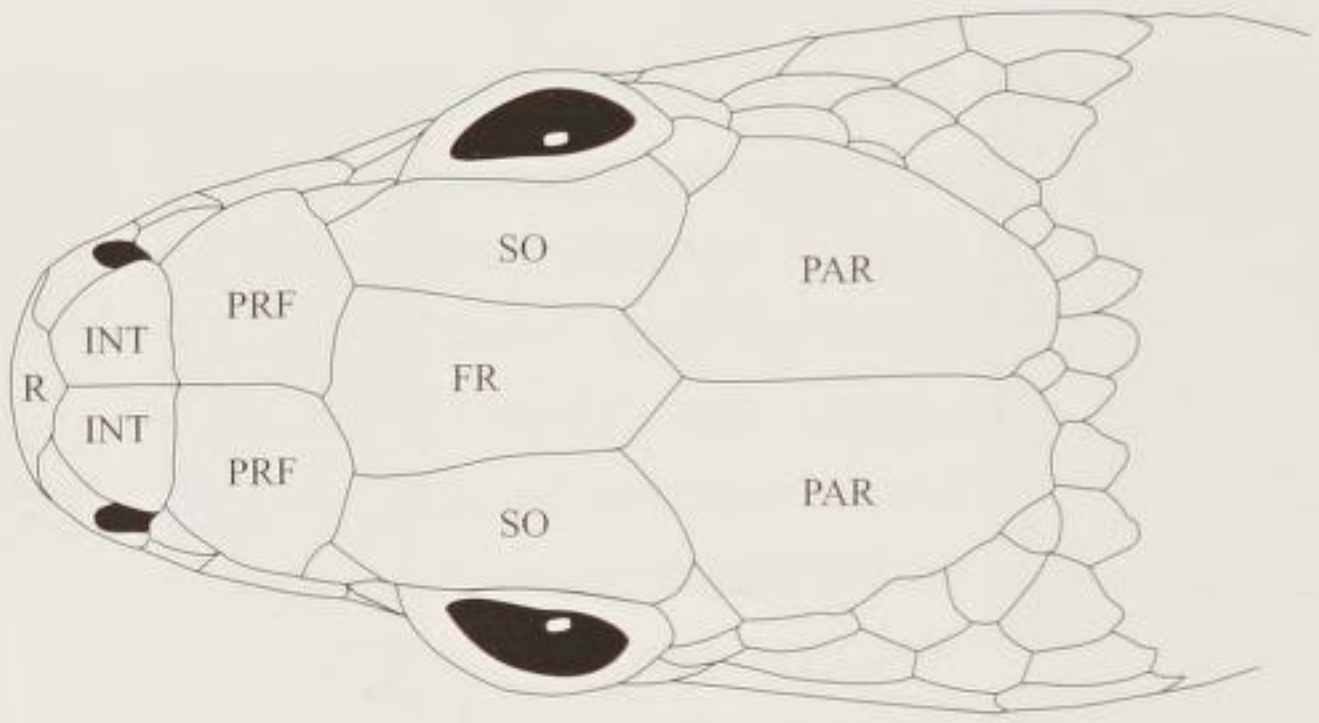
AG *T. albolabris*

Small to medium-sized, slow, nocturnal/diurnal snakes found mainly in the Western Ghats and the Northeast. The name is derived from the heat sensitive "pit" between each nostril and eye. Feed on frogs, lizards, rodents and birds. Venom not as toxic as viper venom, but all strike fast and some species have caused rare human fatalities. Live bearers (all but two species in the Northeast). Females larger than males.

AC Arunachal Pradesh, India

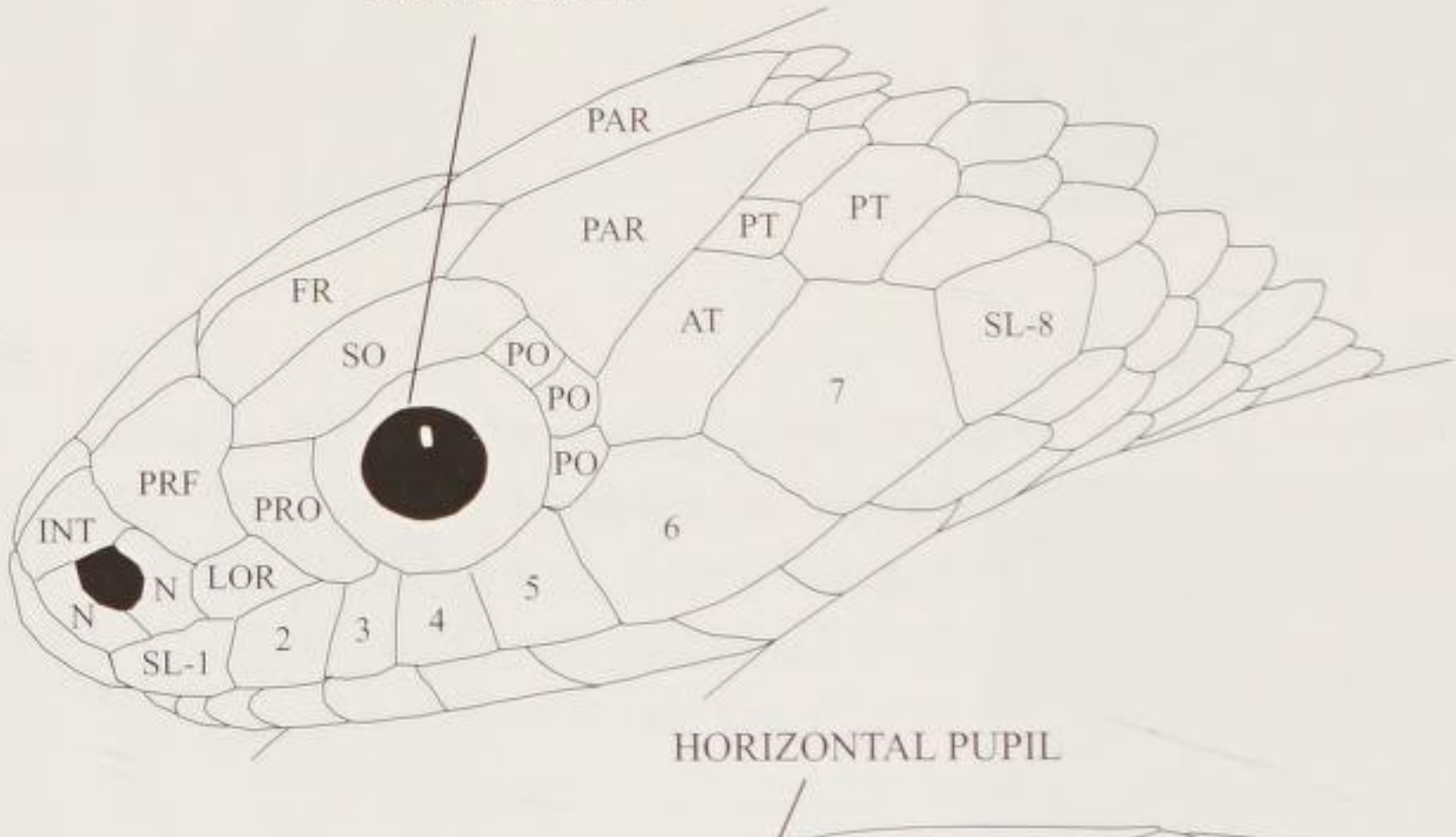
MEDO PIT VIPER *Trimeresurus medoensis*

HEAD SCALES



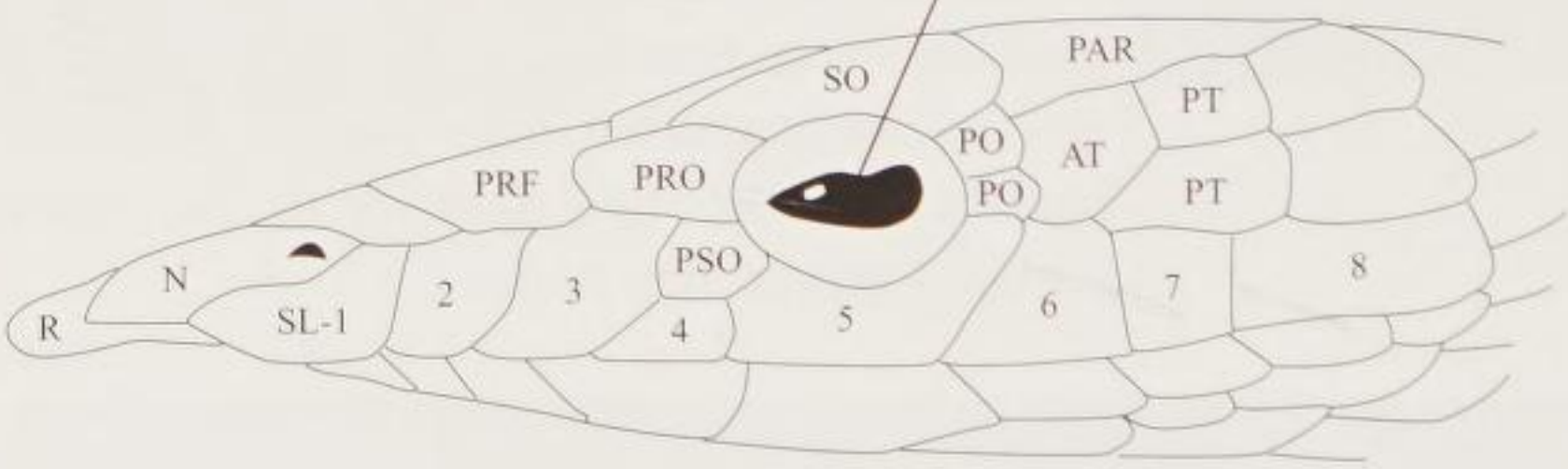
Amphiesma monticola

ROUND PUPIL



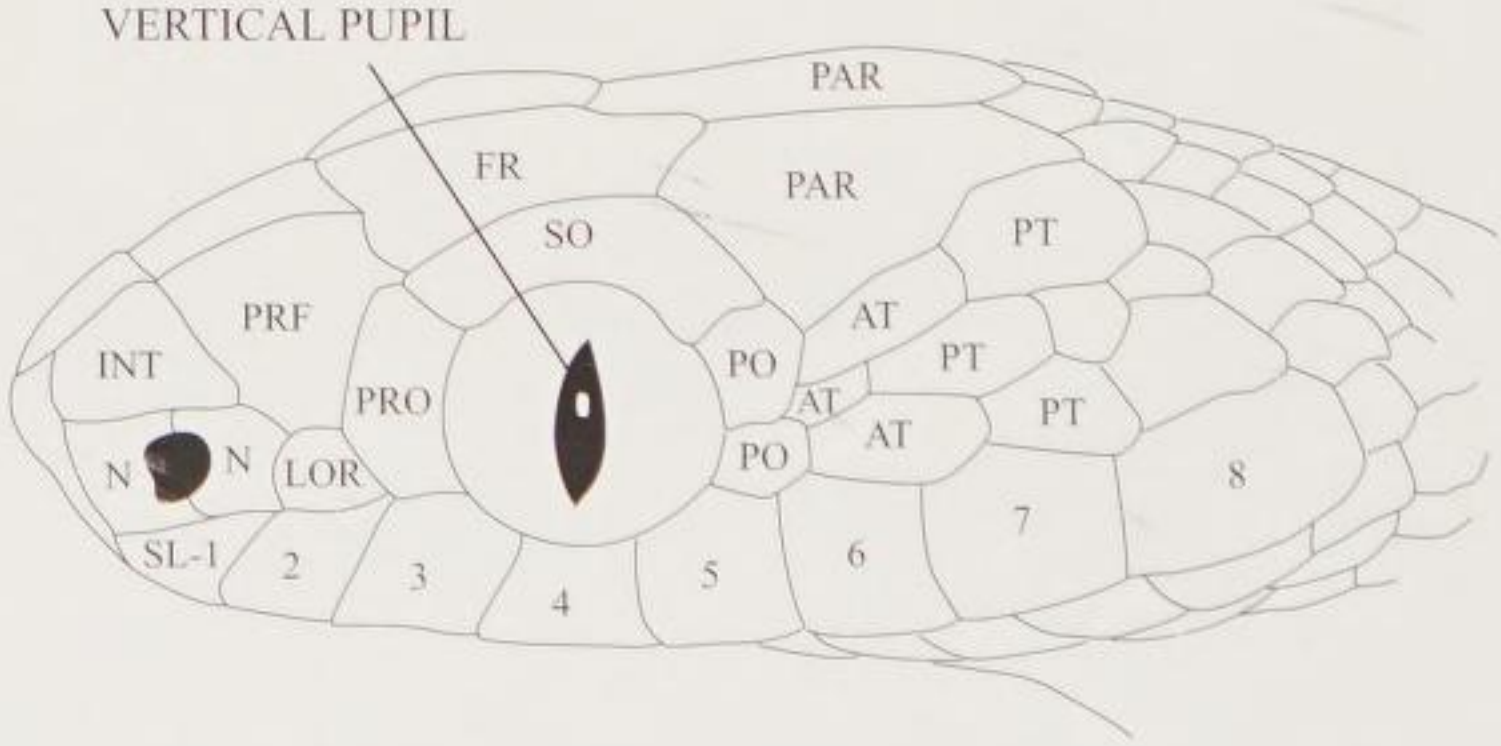
Amphiesma stolatum

HORIZONTAL PUPIL



Ahaetulla nasuta

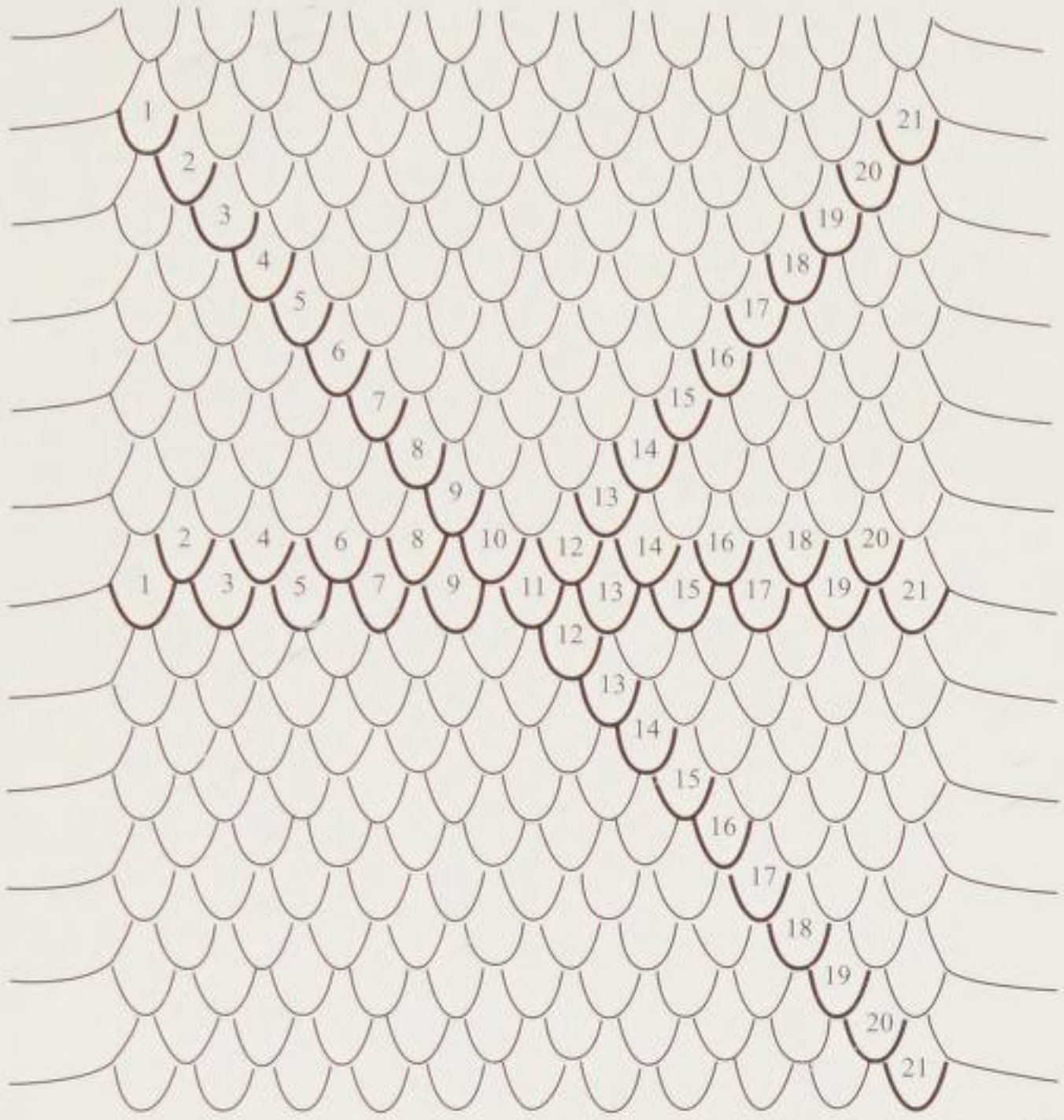
VERTICAL PUPIL



Boiga andamanensis

R	ROSTRAL	PRO	PREOCULAR	PO	POSTOCULAR
N	NASAL	PSO	PRESUBOCULAR	SL	SUPRALABIAL
INT	INTERNASAL	SO	SUPRAOCULAR	PAR	PARIETAL
LOR	LOREAL	FR	FRONTAL	AT	ANTERIOR TEMPORAL
PRF	PREFRONTAL			PT	POSTERIOR TEMPORAL

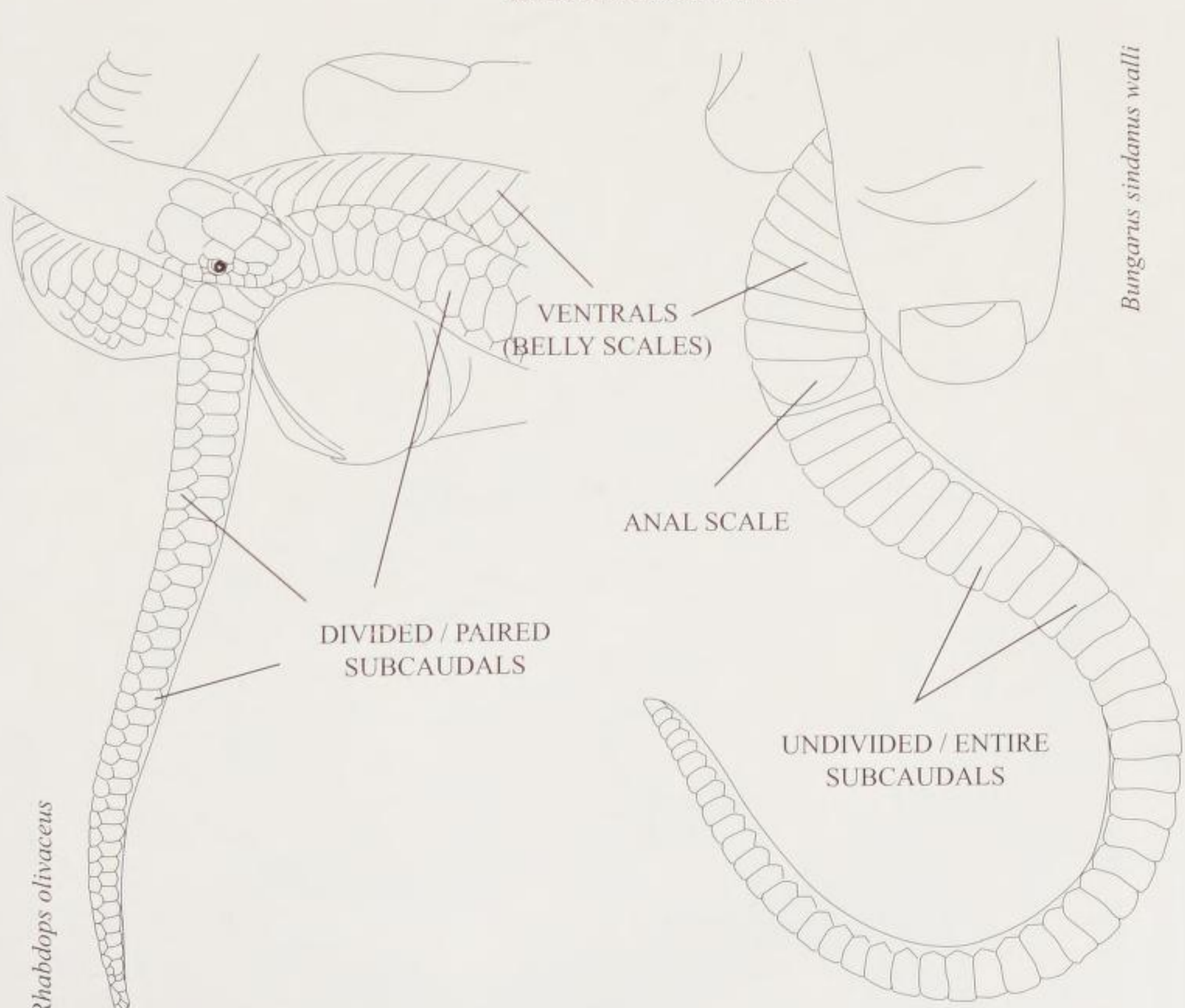
METHODS OF COUNTING BODY SCALES



After Schultz, 1998

SUBCAUDAL SCALES

Scales on underside of tail



Brahminy Worm Snake

Ramphotyphlops braminus

NON VENOMOUS, COMMON

At hatching 35mm (1.4in)
Adults 125mm (5in)
Maximum 230mm (9in)

Description

Head same width as body, snout round. Tiny scale-covered eye visible as black dot. Short, blunt tail ends in a tiny spine. Glossy body, almost uniform reddish-brown or blackish-brown above; lighter below. Often mistaken for a worm, but a close look will reveal the scales, eyes and tiny tongue. Only upper jaw (maxilla) has teeth.

Scalation (after Smith)

Scales in 20 rows around the body, smooth; 290-320 transverse rows of scales. Total length of snake 30-45 times diameter of body. Belly scales not broader than adjacent body scales.

Natural History/ Behavior

Spends most of its life underground. Likely to be seen under stones, flowerpots, or while digging in slightly damp earth. Also found in termite mounds and encountered in bathrooms and houses. Seen above ground after rains. Feeds on ants, other small insects and their larvae. When provoked or picked up, will writhe and defecate. One of the few parthenogenic snakes known. No males have ever been found. As the females can lay fertile eggs without needing to mate, this species has spread via flowerpots almost all over the world, even to "snakeless" islands like Lakshadweep, New Zealand and Hawaii. Frank Wall writes that in Assam the Brahminy Worm Snake lays 2-7 eggs "like grains of boiled rice" in June.

Distribution

The whole of South Asia. Introduced worldwide.

Look-alikes

Other worm snakes.

ADULT - South India

JENNIFER DALTRY

Brahminy Worm Snake *Ramphotyphlops braminus*

NON VENOMOUS, COMMON At hatching 35mm (1.4in); adults 125mm (5in); maximum 230mm (9in)

Diard's Worm Snake

Typhlops diardii

NON VENOMOUS, UNCOMMON

At hatching 100mm (4in)
Maximum 430mm (17in)

Description

Though small, one of our largest and thickest worm snakes. Scales small, smooth, highly polished. Head not broader than neck. Snout rounded, strongly projecting; its tip has a single prominent, upturned scale which is visible from above. Poorly developed eye visible as a tiny dark spot under scales. Very short tail ends in a small spine. Black or dark brown back; whitish or paler underside. The two colors are not sharply separated. Only upper jaw (maxilla) has teeth.

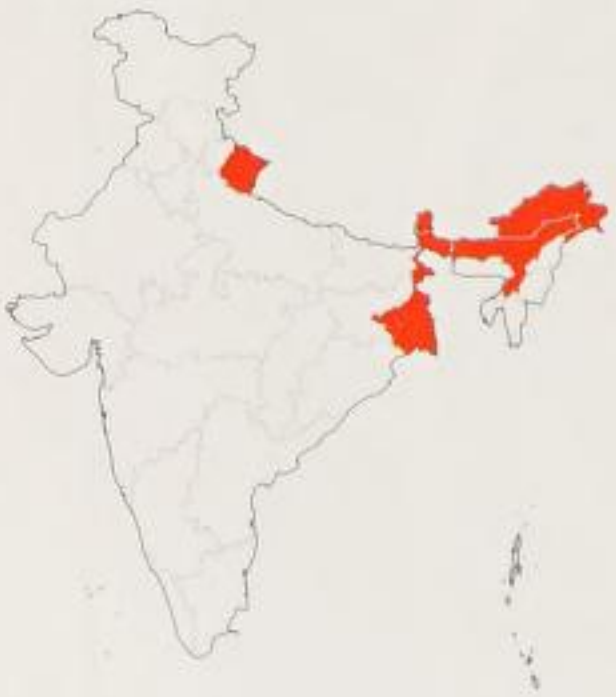
Scalation (after Smith)

Scales 24-26 (rarely 22) rows around the body, smooth; 260-300 transverse scale rows. Total length of snake 26-32 times diameter of body. Breadth of rostral 1/3rd to 3/5th that of head. Rostral often extends to level of eyes. Belly scales not broader than adjacent body scales.

Natural History/ Behavior

Lives mostly underground, in decaying wood or vegetation. Like all burrowing snakes, sometimes found on surface after heavy rains. Can burrow rapidly in soft soil. Eats worms, soft-bodied insects and their larvae. Lays 4-14 eggs in March-June. A female collected in June in Dehra Dun contained 9 fully developed eggs 4-7mm (0.2-0.3in) long.

Distribution



India: to at least 1525m (5000ft) in western Himalayas up to Dehra Dun, eastern Himalayas to Arunachal Pradesh; West Bengal and Assam. Also Nepal, Bangladesh and Myanmar.

Look-alikes

Large adults may be mistaken for the Red Sand Boa.

ADULT - Bardia National Park, Nepal

MARK O'SHEA

Diard's Worm Snake

Typhlops diardii

NON VENOMOUS, UNCOMMON

At hatching 100mm (4in); maximum 430mm (17in)

Beddome's Worm Snake

Typhlops beddomei

NON VENOMOUS, RARE

Maximum 140mm (6in)

Description

Glossy and wormlike. Body covered with tiny, smooth scales. Head not broader than neck. Snout rounded, projects strongly. Eye visible as a small black spot under scales. Tail tip pointed. Brown back, often with a dark line along the middle. Underside paler than back; area around vent sometimes whitish. Has teeth only in upper jaw.

Scalation (after Smith)

Scales in 18 rows around body, smooth; 190-200 transverse scale rows. Total length of snake 20-30 times diameter of body. Breadth of rostral 1/3rd head width. Nostrils lateral. Nasals completely divided; posterior nasals touch behind rostral. No subocular; preocular does not touch anterior nasal. Belly scales not broader than adjacent body scales.

Natural History/ Behavior

Burrower. Found in damp soil. Lays eggs; feeds on worms, ant eggs and larvae.

Distribution

Endemic to India. Hills of southern Tamil Nadu and central Kerala, between 610-1524m (2000-5000ft).

Look-alikes

Other worm snakes.

ADULT - Periyar, Kerala-Tamil Nadu Border, India

ANITA MALHOTRA

Beddome's Worm Snake

Typhlops beddomei

NON VENOMOUS, RARE

Maximum 140mm (6in)

Beaked Worm Snake

Grypotyphlops acutus

NON VENOMOUS, UNCOMMON

Maximum 600mm (24in)

Description

Head same width as body; snout pointed with large, hooked beak-like scale. Nostrils below the "beak". Tiny scale-covered eye visible as a black dot. Short tail ends in a spine. Glossy brown above, distinctly paler below. Only upper jaw (maxilla) has teeth.

Scalation (after Smith)

Scales in 28-34 rows around the body, smooth; 450-500 transverse rows of scales. Rostral very large, beak-like; projects strongly. Total length of snake 40-60 times diameter of body. Belly scales not broader than adjacent body scales.

Natural History/ Behavior

Poorly known. A strong burrower that spends most of its life underground. Hooked snout and tail is used to lever the body backwards or forwards. Eats worms, soft-bodied insects and their larvae.

Distribution

Endemic to India. Found south of the Ganges Basin and south of Rajasthan. Range extends west to Baroda and east to Calcutta. The largest South Asian worm snake.

Look-alikes

Other worm snakes.
Shieldtails.

ADULT - Pune, Maharashtra, India

AC

Beaked Worm Snake

Grypotyphlops acutus

NON VENOMOUS, UNCOMMON

Maximum 600mm (24in)

Pied-belly Shieldtail

Melanophidium punctatum

NON VENOMOUS, RARE

Maximum 560mm (22in)

Description

Slender, cylindrical-bodied and smooth-scaled. Head narrower than neck. Snout rounded. Eye small. Tail very short, slightly compressed, with two parallel ridges that end in two or four small points. Upper body very glossy, extremely iridescent black or dark purplish-brown. Belly scales, those under tail and one or two adjacent rows – black with white edges. Upper scales on tail smooth. In juveniles, tail tip without ridges.

Scalation

Scales in 15 rows, smooth; anal divided; ventrals 180-198; subcaudals 11-18, paired. A mental groove. Loreal absent. Eye in the ocular shield (unlike *Calliophis nigrescens*).

Natural History/ Behavior

Poorly known. Feeds on earthworms. If picked up, may coil hindbody tightly around one's finger.

Distribution

Endemic to India. Known from a few localities in the Western Ghats of Kerala; Tamil Nadu (Anamalais, Ashambu Hills); Goa (Talewadi) and southern Maharashtra (Amboli, Sindhudurg district) at altitudes of 1200-1500m (3940-4920ft).

Look-alikes

Other shieldtails of this genus (not featured).
Striped Coral Snake (black forms).

ADULT - Amboli, Maharashtra, India

Pied-belly Shieldtail

Melanophidium punctatum

NON VENOMOUS, RARE

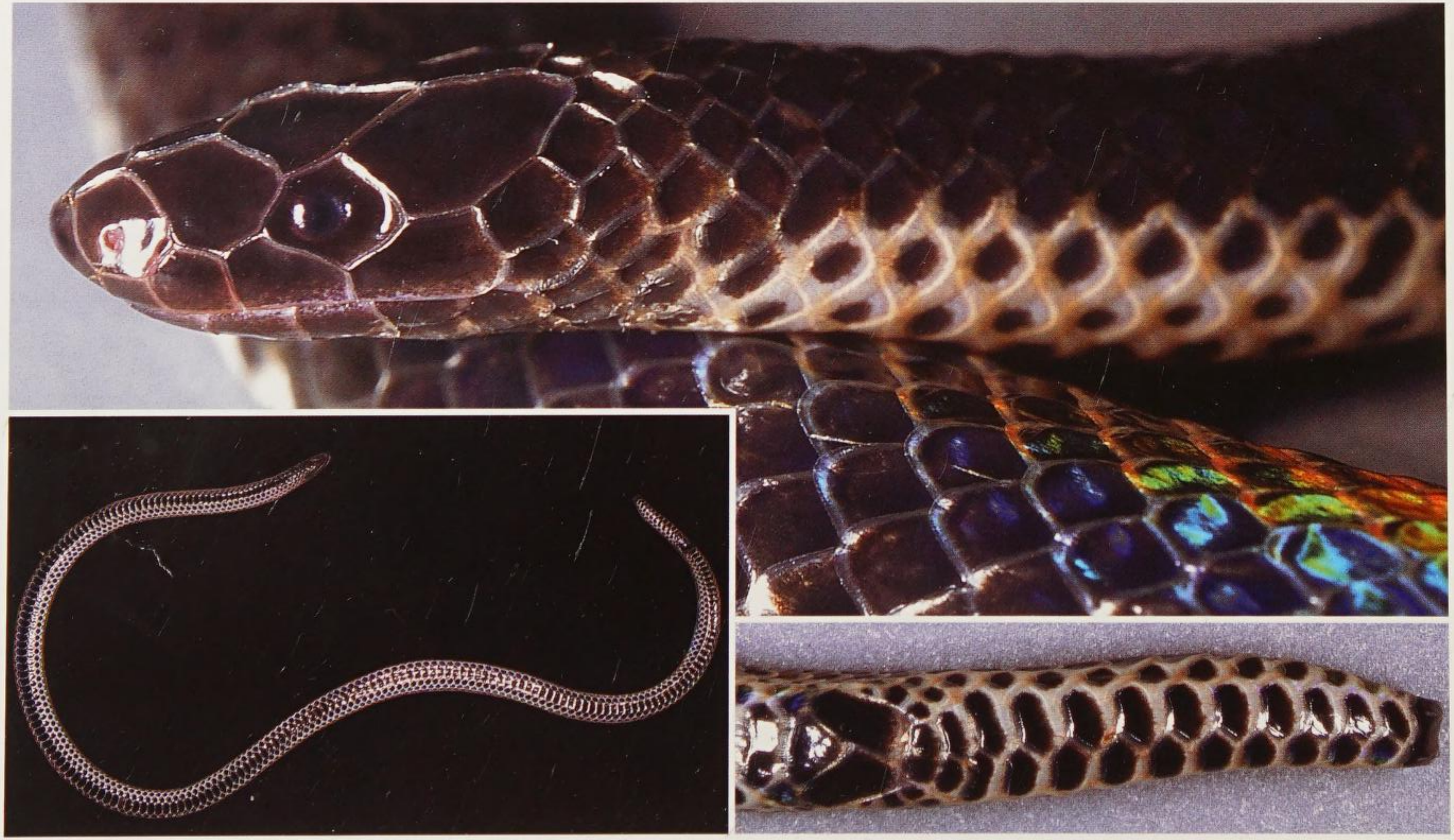
Maximum 560mm (22in)

Pied-belly Shieldtail

Melanophidium punctatum

NON VENOMOUS, RARE

Maximum 560mm (22in)



ADULT - Amboli, Maharashtra, India. Bottom left: Ventral view • Bottom right: Underside of tail showing anal and sub-caudal scales

AC

ADULT - Amboli, Maharashtra, India

Pied-belly Shieldtail

Melanophidium punctatum

NON VENOMOUS, RARE

Maximum 560mm (22in)

Wall's Shieldtail

Brachyophidium rhodogaster

NON VENOMOUS, COMMON

Maximum 210mm (8in)

Description

Small pointed head narrower than neck; eye small. Short, slightly flattened tail ends in a point. Scales on upper surface of tail smooth or weakly keeled. Blackish-brown above. Belly scales and outer scale rows red; those on underside of tail after anal scales – blackish-brown.

Scalation

Scales in 15 rows, smooth. Ventrals: 137-145; anal divided; subcaudals 6-11, paired. No mental groove. Loreal absent. Supraocular and postocular united into single scale; frontal distinctly longer than broad; temporal 1. Upper caudal scales smooth or with weak bi-, or tricarinate keels.

Natural History/ Behavior

Found under stones or in burrows. Probably eats earthworms like other shieldtails. Gentle in disposition.

Distribution

Endemic to India. Known from a few localities in Tamil Nadu (Palni Hills) and Kerala.

Look-alikes

Western Shieldtail (not featured).
Red-bellied Shiedtail (not featured).
Striped Coral Snake (black forms).

ADULT - Palni Hills, Tamil Nadu, India

RW

Wall's Shieldtail

Brachyophidium rhodogaster

NON VENOMOUS, COMMON

Maximum 210mm (8in)

Perrotet's Shieldtail

Plectrurus perrotetii

NON VENOMOUS, UNCOMMON

Maximum 440mm (17in)

Description

Small pointed head not broader than neck; eye small. Short, blunt tail ends in two small points – one below the other. Variable in color. Brown or dark purplish-brown overall, can also be dotted. Underside of tail sometimes orange. Each smooth, glossy scale usually streaked or centered with red or yellow (sometimes uniform brown). Young snakes often have a red or yellow line on top of the tail.

Scalation

Scales in 15 rows, smooth. Ventrals 152-180; anal divided; subcaudals 6-12. No mental groove. Eye half, or less than half ocular shield. Supraocular separated from ocular shield. Loreal absent. Tail laterally compressed with multicarinate scales; terminal caudal scute ends in two simple superposed points (as opposed to ending in bicuspid or tricuspid transverse ridges).

Natural History/ Behavior

Spends most of its time underground. May surface at night, or during heavy rains. Females bear to 3-6 young between July-August. Does not bite when handled but may defecate and poke with tail tip.

Distribution

Endemic to India. Western Ghats – Tamil Nadu (Nilgiris, Anamalai Hills). Reportedly common in the Nilgiris between 1300m-2000m (4265ft-6560ft).

Look-alikes

Other shieldtails of this genus (not featured).

SUBADULT - Avalanche, near Udhagamandalam, Tamil Nadu, India

VARAD GIRI

Perrotet's Shieldtail

Plectrurus perrotetii

NON VENOMOUS, UNCOMMON

Maximum 440mm (17in)

Elliot's Shieldtail

Uropeltis ellioti

NON VENOMOUS, COMMON

Maximum 250mm (10in)

Description

Slender-bodied, smooth-scaled. Head narrower than neck. Snout sharply pointed. Tail very short; tip appears to be cut at a slant (obliquely truncate). Slanting portion slightly rounded; ends in two small spines that are side by side. Glossy dark brown back, with or without small yellow dots and larger ones on the underside. Distinct yellow line along sides of neck and a broad yellow stripe on each side of tail, usually joined by a cross-line at the anal region. This is probably a species complex that needs to be revised.

Scalation

Scales in 17 rows, smooth; ventrals 144-176; subcaudals 5-11, paired. Portion of rostral visible from above as long as distance between it and middle of frontal. Rostral separates nasals for more than half their length. Eye 1/3 to 1/2 ocular shield. Loreal absent.

Natural History/ Behavior

Mostly nocturnal, inoffensive burrower. Eats mainly earthworms. Females bear live young. Has many predators including birds, other snakes and wild boar.

Distribution

Endemic to India. The Western Ghats mostly south of the Goa Gap to Tirunelveli. Also scattered records from Bangalore; Gujarat; Maharashtra and recently Madhya Pradesh (Pachmarhi). The Eastern Ghats up to Ganjam on the Andhra Pradesh-Orissa border.

Look-alikes

Other shieldtails.

ADULT - India. Bottom left: Ventral view • Bottom right: Dorsal view of tail • Top right: Dorsal view of head

Elliot's Shieldtail

Uropeltis ellioti

NON VENOMOUS, COMMON

Maximum 250mm (10in)

Large-scaled Shieldtail

Uropeltis macrolepis macrolepis

NON VENOMOUS, COMMON

Maximum 323mm (13in)

Description

Cylindrical-bodied, smooth-scaled. Head narrower than neck. Snout rounded. Tail very short, appears to be cut at a slant; ends in two small points that are side by side. Upper scales on tail rough, keeled. Overall very glossy black or dark purplish-brown – each scale with a light margin. A short (usually broad) yellow or orange stripe on lips and sides of neck that breaks up and continues as large spots on either side of the forebody. Belly scales usually unmarked. A broad yellow stripe on each side of the tail that is usually joined by a cross-line at the anal region.

Scalation

Scales smooth, in 15 rows at midbody. Ventrals 127-140; subcaudals 7-10, paired. Eye usually more than 1/2 ocular shield. Portion of rostral visible from above distinctly less than its distance from frontal. Loreal absent.

Natural History/ Behavior

Inoffensive burrower. Eats mainly earthworms. A docile snake that has many predators including other snakes and wild boar.

Distribution

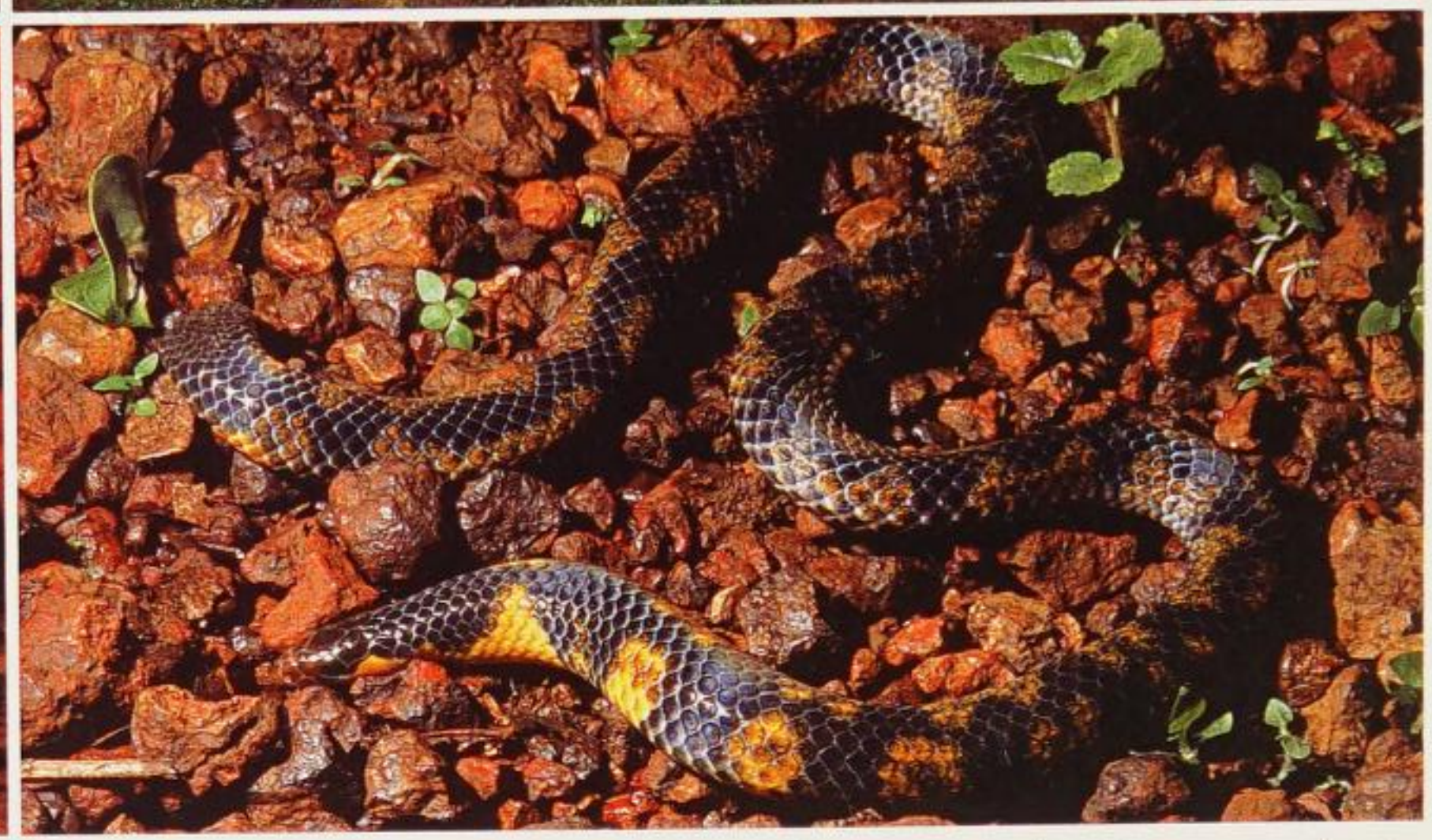
Endemic to India. Western Ghats: though recorded from the Dangs of Gujarat (probably the northern-most limit of its distribution), more widely distributed in Maharashtra (Igatpuri, hills around Bombay, Lonavla, Poona, Mulshi to forests around Koyna and Amboli). Southern-most limit uncertain.

Look-alikes

Other shieldtails.

ADULTS - Top left: Sinhagad, near Pune • Top right: Matheran, Raigad district • Bottom left: Amboli, Sindhudurg district • Bottom right: Mulshi, Pune district. All Maharashtra, India

AC except top right: AMIT CHAVAN



Large-scaled Shieldtail

Uropeltis macrolepis macrolepis

NON VENOMOUS, COMMON

Maximum 323mm (13in)

Large-scaled Shieldtail

Uropeltis macrolepis macrolepis

NON VENOMOUS, COMMON

Maximum 323mm (13in)

ADULT - Amboli, Sindhudurg district, Maharashtra, India

AC

ADULT - Amboli, Sindhudurg district, Maharashtra, India

Large-scaled Shieldtail

Uropeltis macrolepis macrolepis

NON VENOMOUS, COMMON

Maximum 323mm (13in)

Mahableshwar Shieldtail *Uropeltis macrolepis mahableshwarensis*

NON VENOMOUS, COMMON Maximum 323mm (13in)

Description
Cylindrical-bodied, smooth-scaled. Head narrower than neck. Snout rounded. Tail very short, appears to be cut at a slant; ends in two small points that are side by side. Upper scales on tail rough, keeled. Overall very glossy black or dark purplish-brown – each scale with a light margin. Long (mostly unbroken), brownish-yellow stripe along each side of the body. Belly scales usually unmarked. A broad yellow stripe on each side of the tail that is usually joined by a cross-line at the anal region.

Scalation
Scales smooth, in 15 rows at midbody. Ventrals 120-130; subcaudals 9-13, paired. Eye usually more than 1/2 ocular shield. Portion of rostral visible from above distinctly less than its distance from frontal. Loreal absent.

Natural History/ Behavior
Inoffensive burrower. Eats mainly earthworms. A docile snake that has many predators including birds and wild boar.

Distribution

Endemic to India. Restricted to a very small part of the Western Ghats in Maharashtra (Mahableshwar and nearby areas). A single record from near Powai Lake, Mumbai and another from Tung Fort, near Lonavla need reconfirmation.

Look-alikes
Other shieldtails.

ADULT - Mahabaleshwar, Satara district, Maharashtra, India

Mahableshwar Shieldtail

Uropeltis macrolepis mahableshwarensis

NON VENOMOUS, COMMON

Maximum 323mm (13in)

Periyar Shieldtail — *Uropeltis arcticeps madurensis*

NON VENOMOUS, RARE — Maximum 370mm (15in)

Description

Slender-bodied and smooth-scaled. Head narrower than neck; snout obtusely pointed. Very short tail, appears to be cut at a slant; ends in two small spines. Upper scales on tail rough, keeled. Glossy black or dark purplish-brown above, uniform or with yellow-edged scales. Sides of neck yellow. Underside yellow with large black or brown blotches. Variations: occasionally yellow above, spotted with black; underside almost uniform black or purplish-brown. Two subspecies currently recognized: (i) Periyar Shieldtail *Uropeltis arcticeps madurensis* (ii) Tirunelveli Shieldtail *Uropeltis arcticeps arcticeps*. Each has a different distribution; the latter also has fewer belly scales. The taxonomy of this species remains unclear – there are probably two or more species that have been clumped together.

Scalation

Uropeltis arcticeps madurensis: ventrals 146-157, at least 14 specimens known. *Uropeltis arcticeps arcticeps*: ventrals 127 and 128 (128 and 130 - *fide* Boulenger) known from 2 specimens. Characters common to both subspecies: scales in 17 rows, smooth; eye 1/2 to 1/4 ocular shield; portion of rostral visible from above equal to or less than its distance from frontal. No mental groove. Both loreal and supraocular absent; usually no temporals. Tail obliquely truncate above, truncated portion large, flat, forms an oval disc, covered with thickened scales – each of which has two, three or more keels; subcaudals 8 to 10 (rarely 6).

Natural History/ Behavior

Largely unknown. Inoffensive burrower. Active after heavy rains. Like other shieldtails probably eats earthworms.

Distribution

Endemic to India. Periyar Shieldtail: Western Ghats south of the Palghat gap; southern Kerala – from sea level (Alappuzha/ Alleppey) to the hills of Madura district. (Tirunelveli Shieldtail: known with certainty only from the Ashambu Hills in Tamil Nadu).

Look-alikes

Other shieldtails.

ADULT - Periyar, Kerala, India

JENNIFER DALTRY

Periyar Shieldtail

Uropeltis arcticeps madurensis

NON VENOMOUS, RARE

Maximum 370mm (15in)

Phipson's Shieldtail

Uropeltis phipsonii

NON VENOMOUS, COMMON

Maximum 280mm (11in)

Description

Cylindrical-bodied, smooth-scaled. Head narrower than neck. Snout rounded or slightly pointed. Lip scales partly yellow. Tail very short, appears to be cut at a slant and ends in two small spines that are side by side. Very glossy brown or dark purplish-brown, with or without small, irregular, scattered yellow dots on back. A thin, bright yellow line from behind mouth runs along sides of neck and forebody, then breaks up into spots further back. Belly colored like back, sometimes with a few very small, faint yellow spots. A broad yellow stripe on each side of the tail that is usually joined by a cross-line at the anal region.

Scalation

Scales in 17 rows, smooth; ventrals 138-157; subcaudals 7-12, paired. Loreal absent.

Natural History/ Behavior

Largely unknown. Lives underground, a burrower. Active above ground after heavy rains. Eats earthworms. A docile snake that has many predators including birds and wild boar.

Distribution

Endemic to India. Known with certainty from the Western Ghats of Maharashtra (hills around Mumbai and Pune). Reported from Karnataka (Belgaum, Dharwar, and Mysore). Also from Tamil Nadu (the Nilgiris, Biligirirangan Hills, and Kanyakumari district). These records need confirmation, as does a record from the Anamalai Hills.

Look-alikes

Other shieldtails.

ADULT - Pune, Maharashtra, India

Phipson's Shieldtail

Uropeltis phipsonii

NON VENOMOUS, COMMON

Maximum 280mm (11in)

Ashambu Shieldtail

Uropeltis liura

NON VENOMOUS, UNCOMMON

Maximum 320mm (13in)

Description

Cylindrical-bodied, smooth-scaled. Glossy, smooth-scaled, except upper surface of tail where last few scales have one or more faint keels. Head narrower than neck; snout acutely pointed. Eye small, entirely black. Tail very short, upper surface convex, tipped with two small points arranged side by side. Light or dark purplish-brown with several bicolored scales – each of which is black in front, yellow behind or yellow edged with black. The black and yellow scales are widely spaced and may be arranged in a series of "dotted lines" across the back. Most other scales have darker edges. Underside black with large yellow spots and/or cross-bars. Sometimes the two colors are evenly distributed and the belly is alternately black and yellow. Some forms are reportedly "yellow-green with scattered yellow spots" on the back and "dark violet with alternating yellow blotches and cross bands" on the underside. Also on record is a uniform orange-yellow specimen from Oothu, Ashambu Hills, Tamil Nadu.

Scalation

Scales in 17 rows, smooth; ventrals 173-188; anal divided; subcaudals 8-12, paired. Portion of rostral visible from above – as long its distance from frontal. Rostral converges to a point between nasals which touch. Eye nearly 1/2 ocular shield. Loreal absent.

Natural History/ Behavior

Mostly nocturnal. Inoffensive burrower. Found in gardens, and on borders of cardamom plantations. Prefers soils mixed with clay. Eats mainly earthworms. Females bear live young in May-June.

Distribution

Endemic to India. Hills of Tamil Nadu (Anamalais, Nilgiris, Ashambu Hills) and adjacent parts of Kerala between 910m-1520m (2985ft-4990ft).

Look-alikes

Other shieldtails.

ADULT - Periyar Tiger Reserve, Kerala, India

INDRANEIL DAS

Ashambu Shieldtail *Uropeltis liura*

NON VENOMOUS, UNCOMMON Maximum 320mm (13in)

Sunbeam Snake

Xenopeltis unicolor

NON VENOMOUS, RARE

Maximum 1250mm (49in)

Description

Body cylindrical or slightly flattened with smooth, highly iridescent scales. Flattened head with large scales on top; snout rounded. Small eye has vertical pupil. Short tail ends in a point. Uniform chocolate brown or black above. Scales on side of body white-edged. Lip scales white. Scales under body and tail also white, sometimes with brown edges. Young with broad pinkish-white collar.

Scalation

Scales in 15 : 15 : 15 rows, smooth. Ventrals (164) 171-196; anal scale divided; subcaudals 24-31, paired. Loreal absent; preocular 1, large; 2 postoculars; temporals 2+3, supralabials 8 (4th and 5th touching eye). A large single scale behind the frontal and between the parietals (interparietal).

Natural History/ Behavior

Nocturnal. Found in paddy fields, beneath logs or stones, in mangrove swamps, and leaf litter. Chisel-shaped head helps it burrow – can bury itself rapidly in soft earth. Active during rains. Spends the day underground and emerges at night to hunt. Prey includes other snakes, small rodents, frogs, lizards and small birds. Lays 3-17 eggs. Known on Great Nicobar as "*tael sap*" (= oil snake) on account of its iridescence. Sometimes vibrates tail rapidly when disturbed.

Distribution

India: only the Nicobar Islands. Also whole of Southeast Asia.

Look-alikes

None in range.

ADULT - Shompen Hut Complex, Great Nicobar Island, India

SAMEER GHODKE

Sunbeam Snake

Xenopeltis unicolor

NON VENOMOUS, RARE

Maximum 1250mm (49in)

Indian Rock Python

Python molurus molurus

NON VENOMOUS, RARE*

At hatching 500mm (20in)
Adults 3000mm (118in)
Maximum 7620mm (300in)

Description

Thick-bodied, smooth-scaled. Head broader than neck; eye has vertical pupil. Scale at snout tip and first two upper lip scales have heat sensitive pits. Upper surface of head has large scales of different shapes and sizes. Yellowish to brown with asymmetrical dark brown, black-edged blotches. Tip of arrow-head mark on head indistinct in adults; tongue and parts of head pale pink. Two dark streaks on side of head – one below, the other through/behind eye. Underside white or yellowish. (Russell's Viper has keeled scales and a pattern similar in color, but with symmetrical blotches that are are either oval with pointed ends, or round. Also, the upper head scales are small).

Scalation

Scales in 60-75 rows, smooth. Ventrals 253-270, distinctly narrower than width of belly; anal undivided; subcaudals 58-73, paired. Rostral and first 2 supralabials pitted; supralabials 11-13 (6^{th} or 7^{th} touching eye).

Natural History/ Behavior

Nocturnal. Inhabit estuarine mangrove forests, arid scrub jungle, rainforests and grasslands. Though adaptable, rock pythons need large, undisturbed areas to hunt and hide in. As these get scarce, so do these snakes. Prey is mainly warm-blooded (rodents, fruit bats, birds, jackals, civets, deer and wild boar). The pits (slits) on the rostral (snout scale) and upper lip scales sense warmth and help the snake hunt. Both sexes have a "spur" (larger in males) on each side of the anal scale. These are considered to be vestigial hind limbs. Females lay up to 107 eggs in March-June and remain coiled on them for 60-80 days. Muscular body contractions raise temperature a little to help incubate the eggs.

Distribution

Throughout India (except the Islands) up to 2000m (6560ft) above sea level. *Common in parts of its range. Also Pakistan, Nepal, Bhutan, Bangladesh, Sri Lanka.

Look-alikes

Russell's Viper and Sand boas.
Burmese Python (range may overlap).
Reticulated Python (range does not overlap, but often mistaken for this species).

ADULT, Maharashtra, India

Indian Rock Python

Python molurus molurus

NON VENOMOUS, RARE*

At hatching 500mm (20in); adults 3000mm (118in); maximum 7620mm (300in)

Burmese Python

Python molurus bivittatus

NON VENOMOUS, RARE

At hatching 500-790mm (20-30in)

Maximum 6000mm (236in)

Description

Thick-bodied and smooth-scaled. Head broader than neck; eye has vertical pupil. Scale at snout tip and first two upper lip scales have heat sensitive pits. Upper surface of head has large scales of different shapes and sizes. Yellowish to brown with asymmetrical dark brown, black-edged blotches. Tip of arrow-head mark on upper surface of head distinct (even in adults); tongue blue-black; no pink on head. Two dark streaks on side of head – one below, the other through/ behind the eye. Underside white or yellowish. (Russell's Viper has keeled scales and a pattern similar in color, but with symmetrical blotches that are are either oval with pointed ends, or round. Also, the upper head scales are small).

Scalation

Scales in 60-75 rows, smooth. Ventrals 245-270, distinctly narrower than width of belly; anal undivided; subcaudals 58-73, paired. Rostral and first two supralabials pitted; supralabials 11-13, separated from eye by suboculars.

Natural History/ Behavior

Nocturnal. Inhabit estuarine mangrove forests, rainforests and grasslands. Though adaptable, pythons need large, undisturbed areas to hunt and hide in. As these get scarce, so do these snakes. Prey is mainly warm-blooded (rodents, fruit bats, birds, jackals, civets, deer and wild boar). The pits (slits) on the rostral (snout scale) and upper lip scales sense warmth and help the snake hunt. Both sexes have a "spur" on each side of the anal scale. These are considered to be vestigial hind limbs. Females lay up to 107 eggs in March – June and remain coiled on them for 60-80 days. Muscular body contractions raise temperature a little to help incubate the eggs.

Distribution

India: Restricted to Northeast India. There are unpublished, reliable reports of this subspecies from as far west as Uttaranchal (Dehra Dun). Also Nepal, Myanmar, Bangladesh, China, Laos, Vietnam, Thailand, Cambodia, Indonesia.

Look-alikes

Russell's Viper.
Indian Rock Python (range may overlap).
Reticulated Python (range not known to overlap in India).

ADULTS - Main picture: Thailand • Inset: Miao, Changlang district, Arunachal Pradesh, India

Main picture: WOLFGANG WÜSTER • Inset: AC

Burmese Python

Python molurus bivittatus

NON VENOMOUS, RARE

At hatching 500-790mm (20-30in); maximum 6000mm (236in)

Reticulated Python

Python reticulatus

NON VENOMOUS, RARE

At hatching 550–750mm (22–30in)
Adults 3000-6000mm (118–236in)
Maximum 10000mm (394in)

Description

Adults large, thick-bodied, smooth-scaled. Eye has vertical pupil. Large, differently shaped scales on top of head. Thin black line running along middle of head and another from eye to angle of mouth distinguish it from the Indian Rock Python and the Burmese Python. Pale brown or yellowish above with a series of large brown oval or squarish "pixellated" marks that touch or join to form a wide zigzag pattern. Each mark margined with black and yellow; extends onto the sides of the body to enclose a white spot. Freshly moulted individuals are beautifully iridescent. Old snakes generally darker and duller. Underside yellowish.

Scalation

Scales in 66-80 rows, smooth. Ventrals 290-332, distinctly narrower than width of belly; anal entire; subcaudals 75-102, mostly paired. Rostral and first 4 supralabials pitted (*P. molurus* has rostral and first 2 supralabials pitted). Supralabials 12 or 13; suboculars absent.

Natural History/ Behavior

Though mainly terrestrial, a good climber. Mostly nocturnal and semi-aquatic. Found in humid forests. Feeds mostly on mammals, sometimes birds and large lizards. Contrary to popular belief, very rarely eats people. Recorded eating 80% own body weight in captivity. Constricts prey. Lays 50-124 eggs in April-May, which take 60-101 days to hatch depending on incubation temperature. Though females guard eggs by coiling around them, unlike the Indian Rock Python, they seem unable to raise clutch temperature by muscular contractions. In the Nicobar Islands, this snake is a well-known chicken "thief." Both sexes have a spur (larger in males) on each side of the anal scale. These are considered to be vestigial hind limbs. During mating, males use their spurs to align their cloaca with the females and perhaps to stimulate as well.

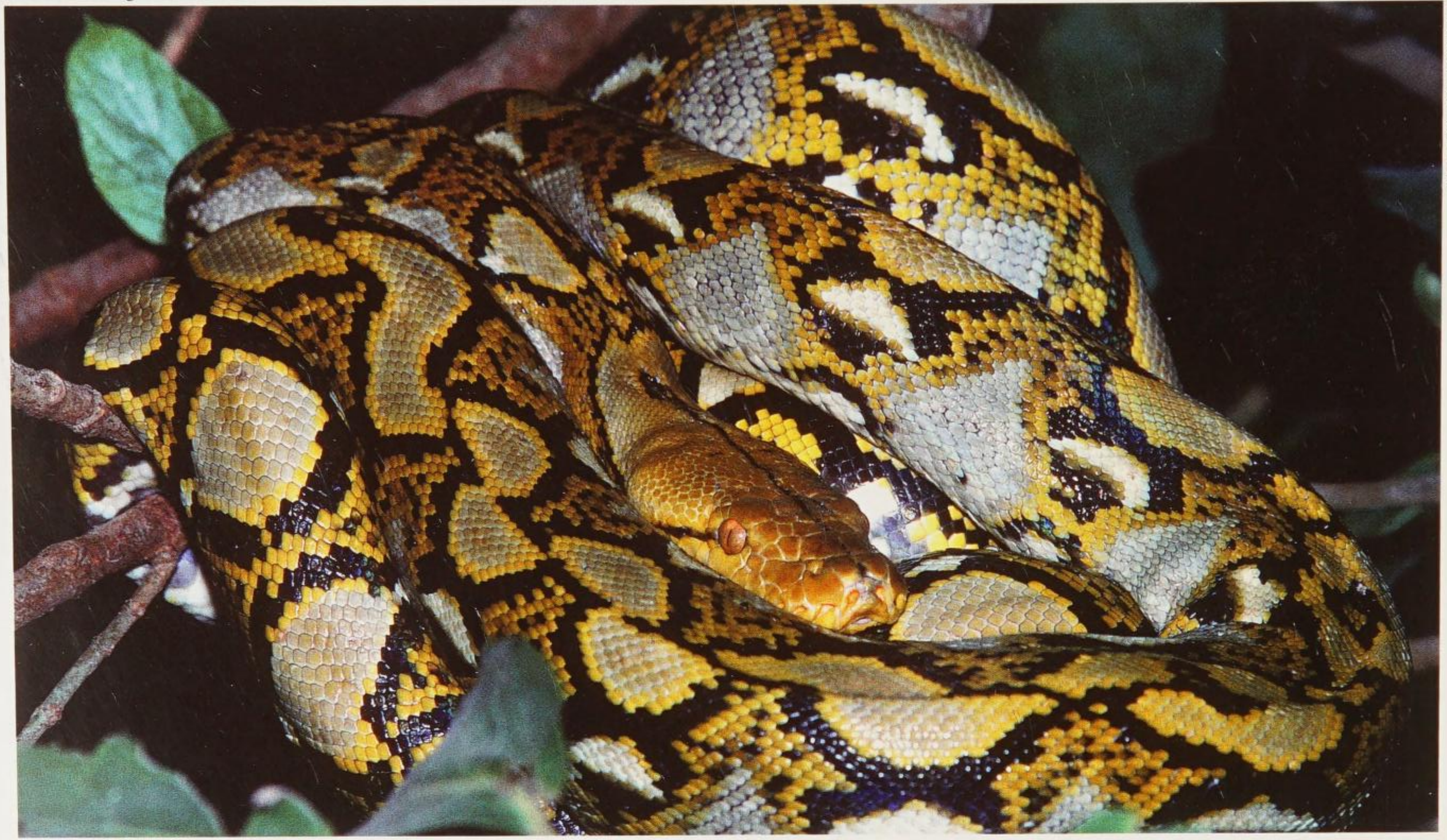
Distribution

India: known with certainty only from the Nicobar Islands. Likely to be found in Northeast India, but this needs confirmation. Also throughout Southeast Asia.

Look-alikes

Other pythons.

ADULT - Chiang Mai, Thailand



WOLFGANG WÜSTER

Reticulated Python

Python reticulatus

NON VENOMOUS, RARE

At hatching 550–750mm (22–30in); adults 3000-6000mm (118–236in); maximum 10000mm (394in)

Common Sand Boa

Gongylophis conicus

NON VENOMOUS, COMMON

At birth 125mm (5in)
Adults 500mm (20in)
Maximum 1000mm (39in)

Description

Short and thick-bodied. Scales of head and tail strongly keeled. Small eye has vertical pupil. Tail very short. Color variable: reddish-brown, yellowish-white, dark brown or black with large irregular usually dark brown, black-edged blotches that are connected on the back. Underside yellowish-white. Young Sand Boas can be mistaken for Saw-scaled Vipers, adults for Russell's Vipers or pythons.

Scalation

Scales in 40-55 rows, strongly keeled on head and tail (sometimes tubercled). Ventrals 162-196, distinctly narrower than width of belly; anal tripartite (a larger median scale with a smaller scale on each side); subcaudals 16-24, entire. Supralabials 12-14; top of head has small scales (except nasals and internasals); scales between eyes (across forehead) 8-10; scales around eye 10-15. Mental groove absent.

Natural History/ Behavior

Mainly nocturnal, but will hunt by day. Feeds on insects, lizards, snakes, birds, and rodents. Kills most prey by constriction. Hunts actively in rodent burrows. Will also hunt by ambush – by burying itself until a bird or lizard comes within striking distance. Females bear 6-8 live young in May-July. When disturbed, Common Sand Boas may thrash about, flatten their bodies, and strike like a viper.

Distribution

Throughout India (excluding the Northeast and the Andaman & Nicobar Islands). Also Pakistan, Nepal, Bangladesh, Sri Lanka.

Look-alikes

Whitaker's Boa.
Indian Rock Python.
Russell's Viper.
Saw-scaled Viper.

ADULT - Pune district, Maharashtra, India • Inset: dorsal view of head showing keeled scales

Common Sand Boa

Gongylophis conicus

NON VENOMOUS, COMMON

At birth 125mm (5in); adult length 500mm (20in); maximum 1000mm (39in)

Red Sand Boa

Eryx johnii

NON VENOMOUS, COMMON

At birth 220mm (9in)
Adults 750mm (30in)
Maximum 1000mm (39in)

Description

Thick-bodied. Head not broader than neck; with a wide, shovel-shaped scale at the tip of the snout. Eye small but distinct; has vertical pupil – (unlike Diard's Worm Snake, whose eye is visible as a black dot). Very blunt tail with rounded tip resembles the head – giving rise to the misbelief that it has two heads. Color variable: reddish-brown, dark brown, speckled gray, yellow or black, sometimes with a black-banded tail. Belly white, spotted with brown or entirely brown. (The tail of Diard's Worm Snake ends in a small spine).

Scalation

Scales in 53-67 rows, weakly keeled (but smooth to the touch). Ventrals 190-210, distinctly narrower than width of belly; anal tripartite (a larger median scale with a smaller scale on each side); subcaudals 20-34, entire. Supralabials 10-12; scales between eyes (across forehead) 6-9; scales around eye 10-11. Mental groove present.

Natural History/ Behavior

Nocturnal. Prefers dry places and sandy soil. Often lives in rodent burrows. Diet and method of killing prey similar to that of the Common Sand Boa; also eats other snakes. Females bear 6-8 live young with distinctly banded tails, and sometimes bodies, around June. Usually very docile.

Distribution

India: throughout drier zones of the peninsula and the Northwest. Also Pakistan and Nepal.

Look-alikes

Diard's Worm Snake.

AMIT CHAVAN

Red Sand Boa

Eryx johnii

NON VENOMOUS, COMMON

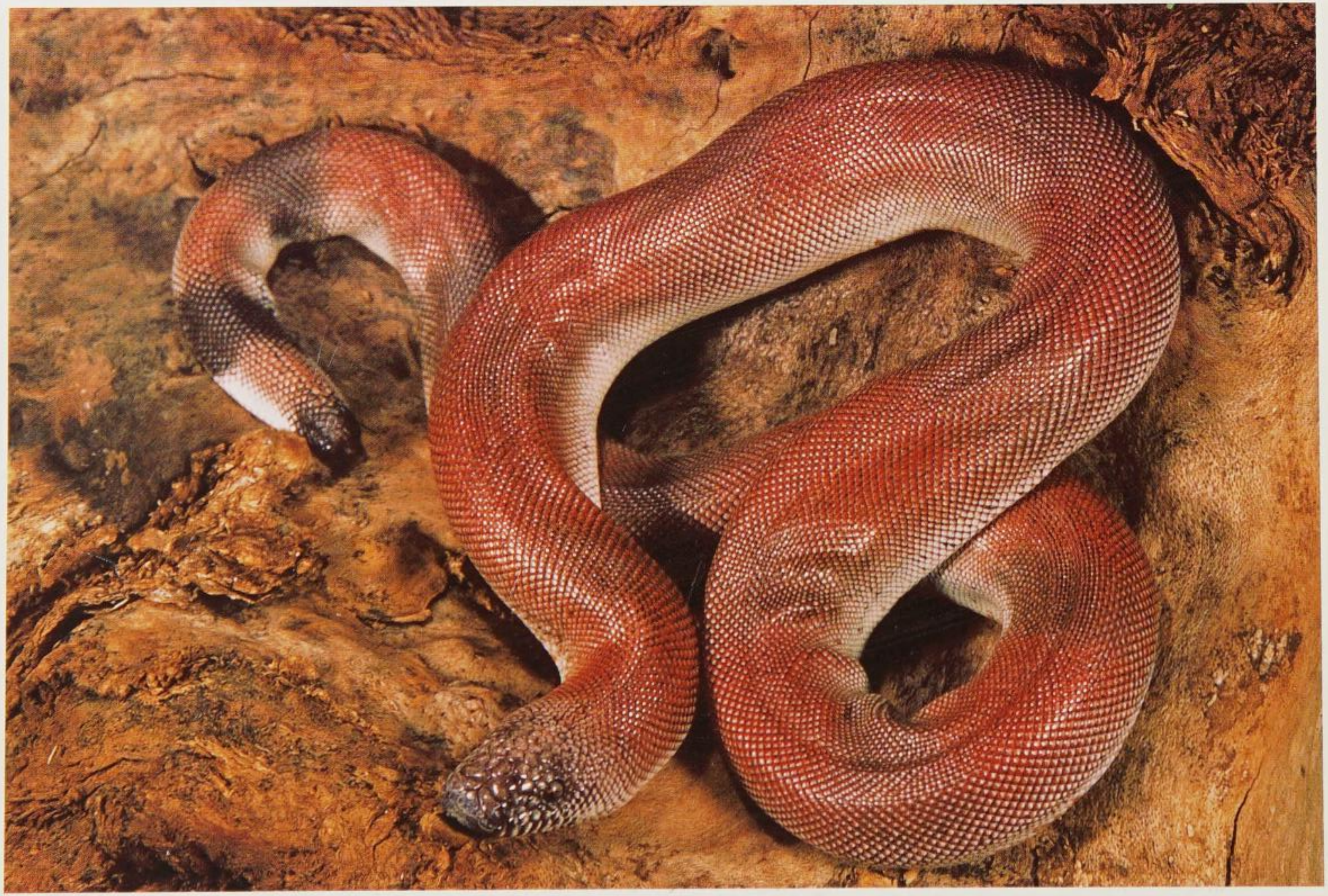
At birth 220mm (9in); adult length 750mm (30in); maximum 1000mm (39in)

Red Sand Boa

Eryx johnii

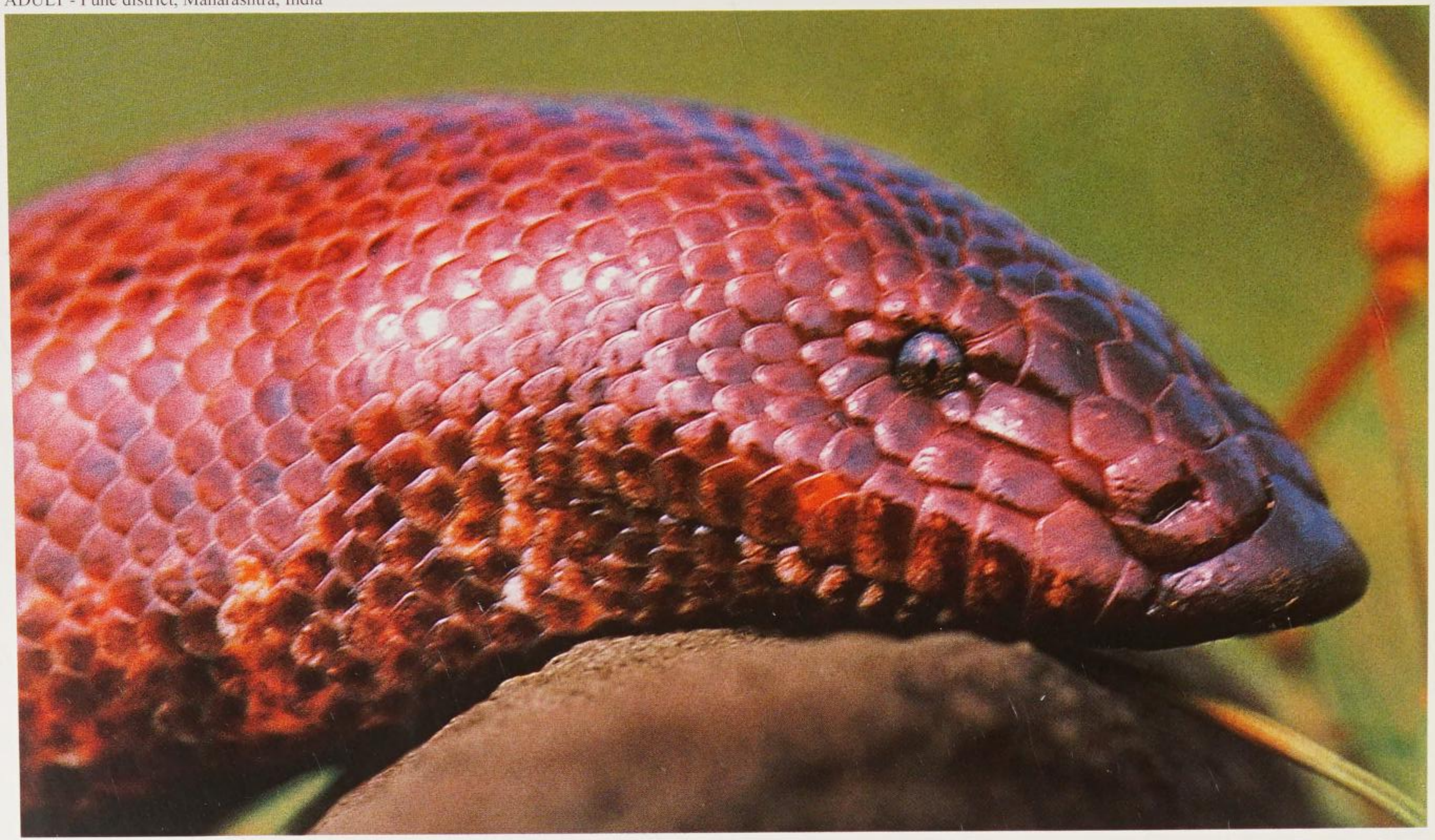
NON VENOMOUS, COMMON

At birth 220mm (9in); adult length 750mm (30in); maximum 1000mm (39in)



JUVENILE - Maharashtra, India

ADULT - Pune district, Maharashtra, India



Red Sand Boa

Eryx johnii

NON VENOMOUS, COMMON

At birth 220mm (9in); adult length 750mm (30in); maximum 1000mm (39in)

Whitaker's Boa

Eryx whitakeri

NON VENOMOUS, COMMON IN PARTS OF RANGE

At birth 100-110mm (4in)
Maximum 790mm (31in)

Description

Recently described species. Small eye has vertical pupil. Brown, blotched with darker brown; similar in form and color to the Common Sand Boa. It differs in having smooth or weakly keeled scales on top of its head and a blunt, rounded, smooth-scaled tail. (The Common Sand Boa has distinctly keeled scales on top of its head and an abruptly pointed, very rough tail. The overall appearance of Whitaker's Sand Boa is smooth, while that of the Common Sand Boa is rough).

Scalation

Scales in 50-54 rows, smooth or rarely weakly keeled. Ventrals 201-213, distinctly narrower than width of belly; anal tripartite (a larger median scale with a smaller scale on each side); subcaudals 18-25, entire. Supralabials 13-14; scales between eyes (across forehead) 8-9; scales around eye 10-11. Mental groove absent. Males with a small spur on each side of the vent.

Natural History/ Behavior

Poorly known. Nocturnal. Has been found in areas of heavy rainfall and seems to climb well. One was seen in the hollow of a mango tree that was infested with termites. Feeds on mice and Brook's Geckos in captivity. Up to 12 live young born June-August in Mangalore.

Distribution

Endemic to India. Presently reported from a few localities from sea level to at least 625m (2050ft) along the Western Ghats in Karnataka, Kerala, Goa and Maharashtra.

Look-alikes

Common Sand Boa.
Indian Rock Python.
Russell's Viper.

ADULT - Mangalore, Karnataka, India

RW

Whitaker's Boa

Eryx whitakeri

NON VENOMOUS, COMMON IN PARTS OF RANGE

At birth 100-110mm (4in); maximum 790mm (31in)

Whitaker's Boa

Eryx whitakeri

NON VENOMOUS, COMMON IN PARTS OF RANGE

At birth 100-110mm (4in); maximum 790mm (31in)

ADULT - Maharashtra, India

Whitaker's Boa

Eryx whitakeri

NON VENOMOUS, COMMON IN PARTS OF RANGE

At birth 100-110mm (4in); maximum 790mm (31in)

Darjeeling Snail-eater

Pareas macularius

NON VENOMOUS, UNCOMMON

Maximum 480mm (19in)

Description

Upper back scales very weakly keeled. Head slightly broader than neck; snout rounded; body laterally flattened. Eye has vertical pupil. Gray or grayish-brown back, with narrow black and white cross-lines or spots on sides of body. Each spot is on a single scale, which is white in front and black behind. White or yellow band on neck sometimes present. Underside whitish with dark gray or black squarish spots.

Scalation

Scales in 15 : 15 : 15 rows, smooth, upper rows very weakly keeled, vertebrals not enlarged. Ventrals: males 148-166, females 150-169; anal undivided; subcaudals: males 40-53, females 37-51, paired. Mental groove absent. Supralabials 6 or 7 (none touching eye); preocular 1; postocular 1; subocular 1 (often united with postocular); temporals 2+3.

Natural History/ Behavior

Nocturnal and terrestrial. Inhabits hilly evergreen forests. Feeds on slugs and snails. Lays up to 6 eggs.

Distribution

India: West Bengal (Gopaldhara, Darjeeling district), Sikkim, possibly much of the Northeast. Also Myanmar, Thailand and Laos.

Look-alikes

Other snail-eaters (not covered).

Cat snakes.

WOLFGANG GROSSMAN

Darjeeling Snail-eater

Pareas macularius

NON VENOMOUS, UNCOMMON

Maximum 480mm (19in)

File Snake

Acrochordus granulatus

NON VENOMOUS, UNCOMMON

At birth 220-344mm (9-14in)
Adults 1000mm (39in)
Maximum 1220mm (48in)

Description

Stout body covered with small, rough, file-like scales. Skin loose/baggy. Head not broader than neck; nostrils and extremely small eyes situated on upper surface of head. Belly scales not broader than adjacent body scales. Raised, ridge-like keel present along mid-line of belly. Tail short and slightly flattened but not oar-like as that of true sea snakes (Family Hydrophidae). Body marked with alternate dull, dark gray and pale brown or off-white rings or cross-bands. Dark bands broadest on back and narrower on sides of body. Either dark or light color may predominate. Pattern sometimes indistinct in adults.

Scalation

Scales small, granular and very rough, Nostrils on upper surface of snout, pointing mainly upward. Head covered with small granular scales; 8-11 scales on a line between the eyes; 14-22 supralabials; about 100 midbody scale rows; raised fold of skin along the middle of the belly covered with small spinose scales.

Natural History/ Behavior

Nocturnal. Usually quiet and inoffensive. Almost helpless on land. Nostrils have valves to prevent water entering. Feeds on fish. Bears 6-12 live young at a time. Females larger than males. Has roughly twice as much blood as a land snake of the same size and high levels of red blood cells, both of which enable it to remain submerged for long periods (captives have remained underwater for 139 minutes).

Distribution

India: coasts and river estuaries (including Andamans). Also Bangladesh, Pakistan, Sri Lanka and much of Southeast Asia; but because of habitat destruction, distribution not continuous.

Look-alikes

Hook-nosed Sea Snake.
Other banded sea snakes.

ADULT - Maharashtra, India

File Snake

Acrochordus granulatus

NON VENOMOUS, UNCOMMON

At birth 220-344mm (9-14in); adults 1000mm (39in); maximum 1220mm (48in)

Green Trinket Snake

Elaphe prasina

NON VENOMOUS, RARE

At hatching 200-250mm (8-10in)
Maximum1200mm (47in)

Description

Slender-bodied. Snout rounded. Eye has round pupil. Green (rarely turquoise) body. Upper lip and underside lighter green than upper body. Skin between scales black or white. No black streak passing through/ behind eye. Tongue reddish-brown. Young sometimes have black-edged scales. Absence of black streak along side of head above upper lip scales helps distinguish it from the Green Trinket Snake. Round eye pupil helps distinguish it from green pit vipers, all of which have vertical pupils.

Scalation (after Schulz)

Scales in 19 : 19 (17) : 17 (15) rows, faintly keeled in adults. Ventrals 186-209 with strong lateral keel; anal entire or divided; subcaudals 91-111, paired. Supralabials 9 rarely 8 (4-6 touching eye); preocular 1; loreal present; postoculars 2; temporals 1+2, 2+2 or 1+1.

Natural History/ Behavior

Mostly diurnal and arboreal. Found near water in hill forests. Feeds on small mammals and also probably birds and lizards. Constricts prey. Lays 5-8 eggs per clutch.

Distribution

India: the Northeast from West Bengal (Darjeeling district) to eastern Arunachal Pradesh (Deban, Changlang district). A record from Solan district in Himachal Pradesh needs confirmation. Also China, Myanmar, Bangladesh, Malaysia, Thailand and Vietnam. Found up to 2650m (8695ft). A specimen in the Indian Museum from the Andaman Islands is probably a mislabeled Red-tailed Trinket Snake.

Look-alikes

Khasi Hills Trinket Snake.

ADULT - Tam Dao, Cambodia • Inset: Close up showing loreal scale

KLAUS-DIETER SCHULZ

Green Trinket Snake

Elaphe prasina

NON VENOMOUS, RARE

At hatching 200-250mm (8-10in); maximum1200mm (47in)

Khasi Hills Trinket Snake

Elaphe frenata

NON VENOMOUS, RARE

Adults 800-1000mm (32-39in)
Maximum 1500mm (59in)

Description

Slender-bodied. Snout (when viewed from side) wedge-shaped. Eye has round pupil. Grass- or olive green (rarely turquoise) back. Skin between scales dark blue-black. Upper lip and underside lighter green. A black streak along side of head above upper lip scales (usually starting before the eye in Indian specimens) helps distinguish it from the Green Trinket Snake. (Round eye pupil helps distinguish it from green pit vipers, all of which have vertical pupils).

Scalation (after Schulz)

Scales in 19 : 19 (17) : 17 (15 or 13) rows, faintly keeled in adults. Ventrals 198-235 with strong lateral keel; anal divided; subcaudals 118-149, paired. Supralabials 8 or 9 (3rd to 5th or 4th to 6th touching eye); preocular 1; postoculars 2; temporals 2+2, 2+3 or 1+2. Loreal absent (fused with prefrontal into a single shield).

Natural History/ Behavior

Poorly known. Arboreal. Found in shrubs, bamboo clumps and trees in mountain forests. Feeds on lizards, rodents and birds. Kills prey by constriction. When threatened, holds ground, strikes repeatedly and vibrates tail. Concave area in front of eyes (as in vine snakes) suggests binocular vision.

Distribution

India: Meghalaya (Khasi Hills); Arunachal Pradesh (Changlang district). Also China and Vietnam. Found from 550-2000m (1800-6560ft).

Look-alikes

Green Trinket Snake.

ADULT - Near Gandhigram village, Changlang district, Arunachal Pradesh, India

Khasi Hills Trinket Snake

Elaphe frenata

NON VENOMOUS, RARE

Adults 800-1000mm (32-39in); maximum 1500mm (59in)

Khasi Hills Trinket Snake

Elaphe frenata

NON VENOMOUS, RARE

Adults 800-1000mm (32-39in); maximum 1500mm (59in)

ADULT - Near Gandhigram village, Changlang district, Arunachal Pradesh, India

ADULT - Near Gandhigram village, Changlang district, Arunachal Pradesh, India

Khasi Hills Trinket Snake

Elaphe frenata

NON VENOMOUS, RARE

Adults 800-1000mm (32-39in); maximum 1500mm (59in)

Red-tailed Trinket Snake

Gonyosoma oxycephalum

NON VENOMOUS, UNCOMMON

At hatching 400-550mm (16-22in)
Adults 1750mm (69in)
Maximum 2400mm (95in)

Description

Body distinctly higher than wide. Large eye has round pupil. Green back, pale greenish-yellow underside; tail reddish-brown; the two colors meet abruptly at vent. Skin between upper body scales has small light and dark areas which outline the scales. Black stripe along side of head immediately above upper lip scales. Tongue bluish-black.

Scalation (after Schulz)

Scales in 23 (rarely 25) : 23 or 25 (rarely 27) : 15 rows, smooth, or very weakly keeled in adults. Ventrals 230-263, with strong lateral keel; anal 2; subcaudals 120-157, paired. Supralabials 9-11 rarely 8 (5^{th} and 6^{th} or 6^{th} and 7^{th}, rarely 6^{th} to 8^{th} or 5^{th} to 7^{th} touching eye); preocular 1; postoculars 2; temporals 2+3, 2+4, rarely 1+4.

Natural History/ Behavior

Arboreal, even mates on trees. Found in bushes near brackish-water creeks; also found in hollows in tall trees. Very agile, able to catch flying birds; also eats bats and small arboreal mammals. If threatened, opens mouth, inflates forebody and forms a "ready to strike" S shape. Reproduces throughout the year. Lays 6-12 eggs.

Distribution

India: only in the Andaman Islands. Also throughout Southeast Asia.

Look-alikes

None in range.

ADULTS - Main picture: Andaman Islands, India • Inset: Captive specimen, UK. Threat/alarm display

Main picture: RW • Inset: MARK O'SHEA

Red-tailed Trinket Snake

Gonyosoma oxycephalum

NON VENOMOUS, UNCOMMON

At hatching 400-550mm (16-22in); adults 1750mm (69in); maximum 2400mm (95in)

Copper-headed Trinket Snake

Coelognathus radiatus

NON VENOMOUS, COMMON

At hatching 250-300mm (10-12in)
Adults 1500-1800mm (59-71in)
Maximum 2300mm (91in)

Description

Grayish-brown, fawn, or yellowish-brown back with four black stripes on the forebody (sometimes also midbody). Upper stripes broad, outer pair usually broken into elongated spots. Head copper brown with black line across nape and three black streaks from below and behind eye (uppermost streak joins black line on nape). Underside uniform yellow or gray.

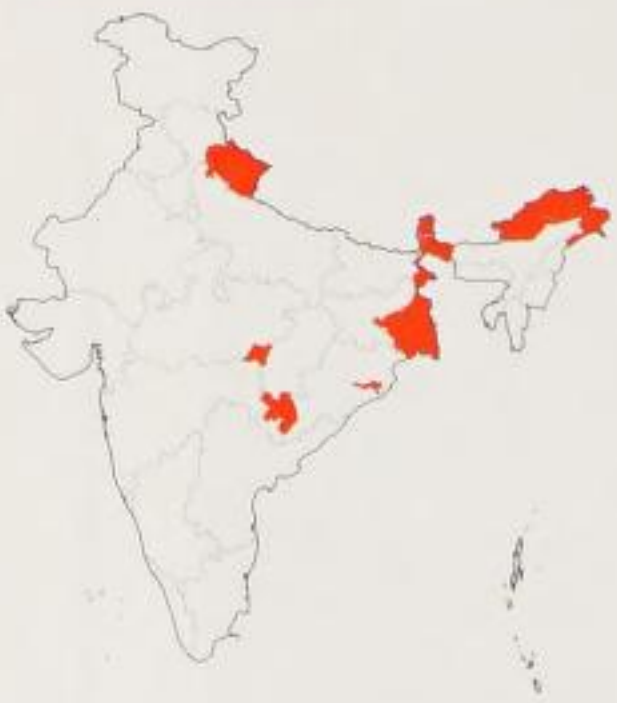
Scalation

Scales in 21 or 19 : 19 : 17 rows, weakly keeled on back in adults. Ventrals 207-250 with strong lateral keel; anal entire; subcaudals 80-108, paired. Supralabials 9 rarely 8 (4^{th} to 6^{th} or 3^{rd} to 5^{th} touching eye); preocular 1; postoculars 2; temporals usually 2+2 .

Natural History/ Behavior

Diurnal. Though terrestrial, climbs and swims well. Found in open areas close to forests. Eats small mammals, lizards, birds and occasionally frogs. Breeds throughout the year in warmer parts of range; lays 5-15 eggs. If cornered, inflates forebody vertically, forms a series of S shaped curves and lifts off ground in defense. Also may open mouth, hiss, and strike.

Distribution



India: Uttaranchal (Dehra Dun) to Arunachal Pradesh (Miao) along the Himalayas, parts of Madhya Pradesh (Balaghat), Chattisgarh (Bastar), Orissa (Cuttack), West Bengal and Sikkim. Also Bangladesh, Nepal and throughout most of Southeast Asia. Found up to 1480m (4855ft).

Look-alikes

Other trinket snakes.

ADULT - Surat Thani province, Thailand

ANDREAS GUMPRECHT

Copper-headed Trinket Snake

Coelognathus radiatus

NON VENOMOUS, COMMON

At hatching 250-300mm (10-12in); adults 1500-1800mm (59-71in); maximum 2300mm (91in)

Black-tailed Trinket Snake

Coelognathus flavolineatus

NON VENOMOUS, UNCOMMON

At hatching 250-300 mm (10-12in)
Maximum 1800 mm (71in)

Description

Adults have keeled scales. Narrow head; large eye has round pupil. Forebody light brown; hind body darker brown; tail black. Three black streaks behind eye. No black cross-line on neck. Belly scales pale cream, scales under tail blackish-gray. Young sometimes have yellow-centered black spots on sides of forebody. If present in adults, spots entirely black. Distinct black tail aids identification. Specimens from the Andamans lack the yellow, black-edged back stripe that is found on those from other parts of its range.

Scalation

Scales in 21 or 19 : 19 : 17 rows, keeled (adults). Ventrals 193-242 with strong lateral keel; anal entire; subcaudals 80-116, paired. Supralabials 9 (4th to 6th touching eye, 6th touching temporal); preocular 1; postoculars 2; temporals 2+2.

Natural History/ Behavior

Though terrestrial, a good climber. Often active after it rains. Also seen in the cool hours of the early morning and late evening. Enters houses in search of chicken eggs. Juveniles eat small rodents, frogs, and lizards; adults take larger rodents, birds and bats. Constricts prey. Breeds throughout the year; 5-12 eggs laid which hatch in 60-70 days. Defense behavior similar to that of other trinkets – body inflated vertically, forebody raised into an S shape and mouth opened. If further alarmed, may strike forcefully and repeatedly.

Distribution

India: the Andaman Islands. Also Thailand, Myanmar, Malaysia, and western Indonesia.

Look-alikes

None.

Top left: ADULT, Malaysia • Top right: JUVENILE • Bottom: Bandar Seri Begawan, Brunei

Bottom: INDRANEIL DAS • Top: KLAUS-DIETER SCHULZ

Black-tailed Trinket Snake

Coelognathus flavolineatus

NON VENOMOUS, UNCOMMON

At hatching 250-300 mm (10-12in); maximum 1800 mm (71in)

Common Trinket Snake

Coelognathus helena helena

NON VENOMOUS, COMMON

At hatching 250mm (10in)
Adults 700mm (28in)
Maximum 1680mm (66in)

Description

Slender-bodied. Scales of hind body and tail sometimes keeled. Mostly tan or olive, and chocolate brown with two black stripes on neck and light bands and/or checks on forebody; hindbody has two prominent dark brown or black stripes that continue onto tail; belly pearl white.

Scalation (after Schulz)

Midbody scales smooth, in 23 to 27 (rarely 23 or 29) rows. Scales on hindbody and tail weakly keeled. Ventrals 210-244, angulate laterally; anal scale entire (rarely divided); subcaudals 73-100, paired. Supralabials 8-11 (5^{th} and 6^{th}/ 6^{th} and 7^{th} or rarely 4^{th} and 5^{th}/ 4^{th} to 6^{th}/ 5^{th} to 7^{th} touching eye; last supralabial below eye touching temporals); preocular 1; postoculars 2 (rarely 1) temporals 2+2, 2+3 or rarely 2+4.

Natural History/ Behavior

Active by day and night. In summer this species is found in termite mounds, rock piles and crevices. During cooler months, it may be seen on leafy trees and bushes. Often seen near, or in human habitation. Prefers rats, mice, and squirrels but also eats lizards, frogs and snakes. Lays 6-12 eggs (year round in warmer parts of range). When excited, coils forebody into a series of near vertical S shaped loops and opens mouth; may also strike repeatedly.

Distribution

Throughout India, up to Jammu & Kashmir (Poonch) in the north, to Manipur and the Naga Hills in the Northeast. Also Nepal, Bangladesh and Sri Lanka. An old record from Pakistan needs confirmation.

Look-alikes

Other trinket snakes.
Striped Keelback.
Beddome's Keelback.

ADULT - Pune, Maharashtra, India

Common Trinket Snake

Coelognathus helena helena

NON VENOMOUS, COMMON

At hatching 250mm (10in); adults 700mm (28in); maximum 1680mm (66in)

Montane Trinket Snake *Coelognathus helena monticollaris*

NON VENOMOUS, COMMON Adult length 1000mm (39in)

Description
Slender-bodied. Scales of hind body and tail sometimes keeled. Tan or olive, and chocolate brown with a banded forebody. The bands consist of several rows of large pale yellow oval or round spots encircled with black. Hind body has lateral stripes. Belly white, with a series of black (often bracket-shaped) markings on each side.

Scalation (after Schulz)
Midbody scales in 23 to 27 (rarely 23 or 29) rows, smooth. Scales on hindbody and tail weakly keeled. Ventrals 216-260, angulate laterally; anal scale entire (rarely divided); subcaudals 73-100, paired. Supralabials 8-11 (5^{th} and 6^{th}/ 6^{th} and 7^{th} or rarely 4^{th} and 5^{th}/ 4^{th} to 6^{th}/ 5^{th} to 7^{th} touching eye; last supralabial below eye touching temporals); preocular 1; postoculars 2 (rarely 1) temporals 2+2, 2+3, rarely 2+4.

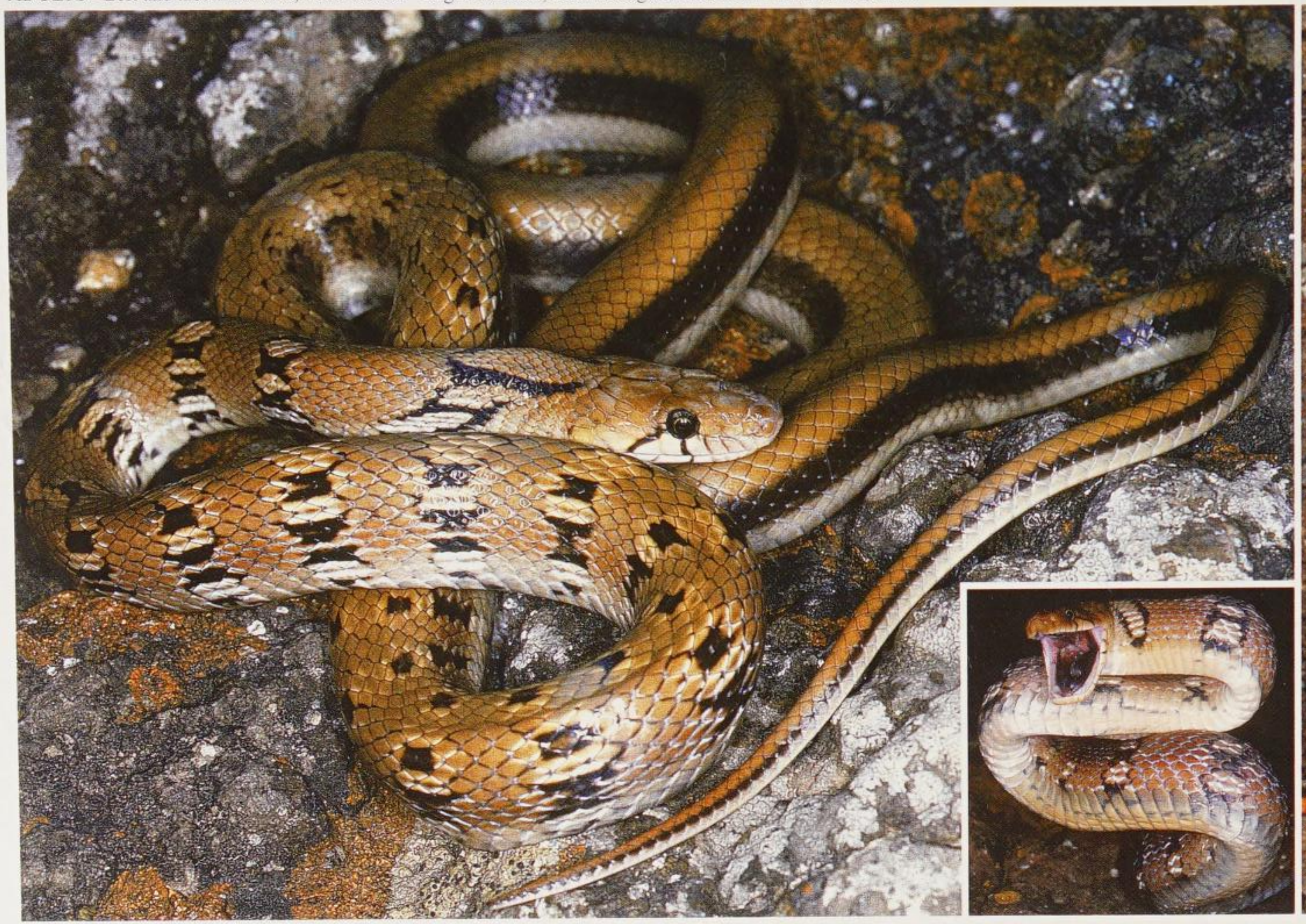
Natural History/ Behavior
Poorly known. Active by day and night. In Maharashtra, has been found in evergreen forests as well as towns (Lonavla). Captive specimens have eaten rats and mice. When excited, coils forebody into a series of near vertical S shaped loops and opens mouth; may also strike repeatedly.

Distribution

Endemic to India. Western Ghats (Tamil Nadu, Kerala, Karnataka, Maharashtra and Goa).

Look-alikes
Common Trinket Snake.

ADULTS - Left and inset: Lonavla, Pune district • Right: Amboli, Sindhudurg district. Both Maharashtra, India



Montane Trinket Snake

Coelognathus helena monticollaris

NON VENOMOUS, COMMON

Adult length 1000mm (39in)

Striped Trinket Snake

Orthriophis taeniurus

NON VENOMOUS, UNCOMMON

At hatching 300-450mm (12-18in)
Maximum 1800mm (71in)

Description

Light gray, white or brown back, patterned with black or dark brown. Only marking on head is broad, black stripe behind eye. No collar on neck. Forebody has a series of large "butterfly-shaped" spots in the middle and smaller diamond-shaped spots on sides. Markings break up on hind body. Hindbody has pale gray stripe bordered on each side by a broad black stripe. Underside uniform yellowish-cream, sometimes spotted with black. (The look-alike Copper-headed Trinket Snake has a thin, black collar connected to each eye by a black line, in addition to the stripe behind each eye).

Scalation (after Schulz)

Scales in 23 : 23 : 17 or 19 rows, smooth or weakly keeled. Ventrals 236-260, with strong lateral keel; anal scale divided; subcaudals 89-120. Supralabials 9, rarely 7 or 8 (4, 5 or 5, 6 touching eye); last labial below eye not touching temporals; preocular 1; subocular sometimes present; postoculars 2, rarely 3; temporals greatly variable 2+2, 2+3, 3+3, rarely 3+2, 2+4, 4+4 or 3+4.

Natural History/ Behavior

Active by day and night. Partly arboreal. Found in mountains near water, edges of forests, as well as in moist, dense vegetation. Also found near human habitation, may enter houses in search of rodents or birds. If threatened, inflates throat vertically, lifts forebody off ground into S shaped coils, opens mouth, hisses, and vibrates tail tip. May also strike repeatedly. Lays 6-12 eggs.

Distribution

India: eastern Himalayas – West Bengal (Darjeeling), Sikkim, Arunachal Pradesh (Gandhigram). Found between 700-3100m (2300-10,170ft). Also China, Myanmar and Thailand.

Look-alikes

Copper-headed Trinket Snake.

SUBADULT - Gandhigram village, Changlang district, Arunachal Pradesh, India

Striped Trinket Snake

Orthriophis taeniurus yunnanensis

NON VENOMOUS, UNCOMMON

At hatching 300-450mm (12-18in); maximum 1800mm (71in)

Himalayan Trinket Snake

Orthriophis hodgsonii

NON VENOMOUS, COMMON

At hatching 300mm (12in)
Adults 1200-1600mm (47-63in)
Maximum 2100mm (83in)

Description

Slender-bodied; scales smooth or weakly keeled. Elongate head slightly broader than neck; eye has round pupil. Yellowish- to olive-brown back; many scales edged with black or white, which grouped together form cross-bands or a mesh-like pattern. Sometimes a central dark blotch on top of head. Lip scales and underside yellowish. Outer edges of belly scales distinctly keeled (turned upwards at a sharp angle), sometimes edged or spotted with black. Underside of tail reddish-brown to black. Some specimens from Nepal are gray with an indistinct brown stripe on each side of body. Juveniles may resemble adults (but with more distinct markings on scale edges); they may be gray with thin black lines or have the midbody marked with four rows of reddish-brown blotches that change into four black lines towards tail.

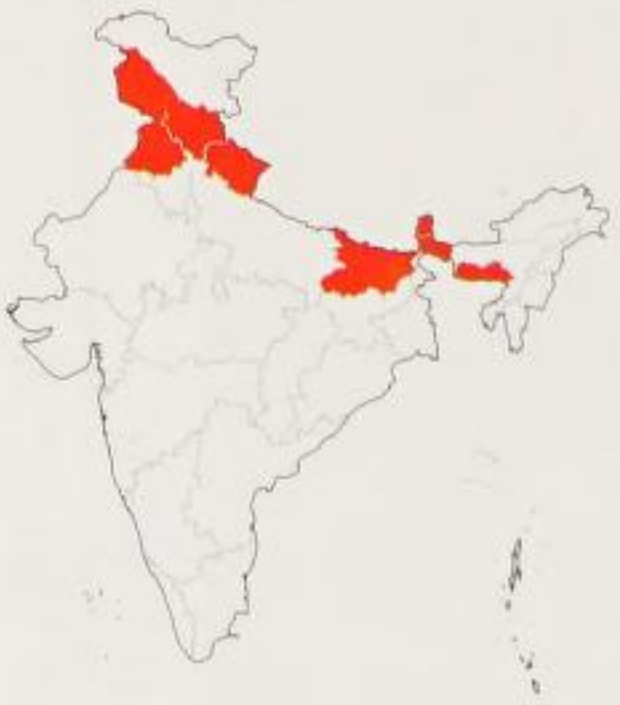
Scalation

Scales in 21 or 23 : 23 : 17 rows, smooth or faintly keeled. Ventrals 228-247 with strong lateral keel; anal scale divided; subcaudals 72-92, paired. Supralabials 8 rarely 9 (4^{th} and 5^{th}, 3^{rd} and 4^{th}, 3^{rd} to 5^{th}, or 4^{th} to 6^{th} touching eye); last supralabial below eye not touching temporals; one large preocular; rarely a small subocular in front of preocular; postoculars 2; temporals 2+2 or 2+3, rarely 3+3, 1+3 or 2+4.

Natural History/ Behavior

Poorly known. Diurnal. A montane form, found in moist deciduous forests, moist oak forests, dry coniferous forests, near urban habitation and edges of agricultural fields close to water. Feeds on rodents, toads and skinks. A captive snake laid and guarded six eggs that hatched in about 130 days.

Distribution



India: recorded from Jammu & Kashmir (near Kargil, Ladakh, Srinagar, Poonch), northern Punjab, Himachal Pradesh (Shimla, Dharamshala), Uttaranchal (Mussoorie, Almora, Garhwal, Nainital), possibly northern Uttar Pradesh and Bihar, West Bengal (Darjeeling), Sikkim, Meghalaya (Garo Hills). Outside India: Nepal and Tibet. Found between 1000-3200m (3280-10,500ft). Two records of 4600m (15,090ft) and 5000m (16,400ft) are possibly incorrect and need confirmation.

Look-alikes

Common Trinket Snake.

FRANK TILLACK

Himalayan Trinket Snake

Orthriophis hodgsonii

NON VENOMOUS, COMMON

At hatching 300mm (12in); adults 1200-1600mm (47-63in); maximum 2100mm (83in)

Eastern Trinket Snake

Orthriophis cantoris

NON VENOMOUS, UNCOMMON

At hatching 380mm (15in)
Adults 1500-1600mm (59-63in)
Maximum 1960mm (77in)

Description

Scales smooth or weakly keeled. Head elongate, slightly broader than neck; eye often red with round black pupil. Forebody pattern distinctly different to rest of body and tail. Forebody grayish- or yellowish-brown, boldly marked with a series of single or paired, dark- or reddish-brown oval or squarish blotches on midback; side of body has smaller spots that alternate with those on the back; interscale skin and some scale edges white. Rest of upper body and tail yellowish-brown, dark gray or black with narrow cross-bands that are white, yellowish-brown or black (sometimes with red centers). Top of head uniform olive-brown or gray. Lip scales paler, sometime yellow or reddish. Underside of head yellow to orange. Belly scales initially yellowish, bluish-gray towards the tail; underside of tail sometimes pink. Scales on belly and under tail sometimes spotted with brown or black. Occasionally underside entirely dark brown or black. Colors and pattern dull on older snakes.

Scalation

Scales in 19 or 21 : 19 or 21 : 17 rows, smooth or faintly keeled. Ventrals 212-236, laterally keeled; anal usually undivided; subcaudals 62-88, paired. Supralabials 8 or 9 (4, 5 or 3–5 touching eye); last supralabial below eye not touching temporals; one large preocular; often with a subocular and sometimes an additional presubocular; postoculars 2; temporals 2+2 or 2+3.

Natural History/ Behavior

Poorly known in the wild. Mainly active in the early morning. Has been found in dense primary montane forests, secondary forests, near houses and agricultural fields. Mostly terrestrial. Captive specimens fed on subadult mice, killing by constriction. Lays 5-10 eggs June-July. Eggs hatched in 84-102 days at incubation temperature of 24° to 30°C.

Distribution

India: West Bengal (around Darjeeling), Sikkim, Meghalaya, Nagaland and Arunachal Pradesh. Also Nepal and Myanmar. Between 1000-2300m (3280-7550ft).

Look-alikes

Other trinket snakes.

ADULT - Nepal

FRANK TILLACK

Eastern Trinket Snake

Orthriophis cantoris

NON VENOMOUS, UNCOMMON

At hatching 380mm (15in); adults 1500-1600mm (59-63in); maximum 1960mm (77in)

Banded Trinket Snake

*Elaphe porphyracea**

NON VENOMOUS, UNCOMMON

At hatching 250-300mm (10-12in)
Adults 800-900mm (32-35in)
Maximum 1200mm (47in)

Description

Strikingly colored. Eye has round pupil. Pink, red or reddish-brown above, with broad, darker pink cross-bands bordered by thin black cross-lines. Hindbody has two additional narrow black stripes. Head has three narrow black lines; the two that start behind eye join first black cross-line on neck. Young have entirely black bands with white or yellow edges. Underside glossy white. *Of the seven subspecies known, only one (*Elaphe porphyracea porphyracea*) is found in India.

Scalation (after Schulz)

Scales in 19 : 19 : 17 or 15 rows, smooth (sometimes very weakly keeled on back). Ventrals 179-217, not angulate laterally; anal scale divided; subcaudals 52-80, paired. Supralabials 7-8, rarely 9 or 10 (4^{th} and 5^{th}, rarely 3^{rd} and 4^{th}, 5^{th} and 6^{th} or 4^{th} to 6^{th} touching eye); last labial below eye not touching temporals; preocular 1; postoculars 2; temporals 1+2, rarely 1+3.

Natural History/ Behavior (after Schulz)

Active in the early morning and evening. Terrestrial, mainly found in tropical mountain forests along edges of low, dense vegetation. Feeds on small mammals like shrews and mice. Lays 3-7 eggs in June or July, which hatch in 50-60 days. When stressed, may coil tail and hindbody like a flat watch-spring. Secretive and inoffensive.

Distribution

India: from Sikkim and West Bengal (Darjeeling district) to Manipur, Meghalaya, Nagaland and Arunachal Pradesh. Also China, Nepal, Myanmar, Thailand, Malaysia, and Sumatra. Found from 1000-2600m (3280-8530ft).

Look-alikes

None.

*The generic name *Oreophis* (proposed by Utiger et. al. 2002) is preoccupied by *Oreophis boulengeri* Dugès 1897, a synonym of *Lampropeltis mexicana* (Garman). This species should be referred to *Elaphe* pending further action (N. Helfenberger and F. Tillack, in litt.).

ADULT - Near Vijoynagar, Changlang district, Aruncahal Pradesh, India

Banded Trinket Snake

Elaphe porphyracea

NON VENOMOUS, UNCOMMON

At hatching 250-300mm (10-12in); adults 800-900mm (32-35in); maximum 1200mm (47in)

Mandarin Trinket Snake

Euprepiophis mandarinus

NON VENOMOUS, RARE

At hatching 300mm (12in)
Adults 1000-1200mm (39-47in)
Maximum 1740mm (69in)

Description

Short head, very slightly broader than neck; snout rounded; tail short. Upper body color variable, but pattern aids identification. Shades of gray or brown above, with a series of large black, diamond-shaped marks that enclose oval, rounded or squarish yellow spots. Black marks have narrow yellow outer margins. Head has three black markings – a band across snout, a crescent-shaped mark that passes through eye after which it divides into two, and a forward-pointing Λ shaped mark on neck. Underside ivory-white or yellow with large black rectangular spots which join or alternate. Easily mistaken for a kukri snake (*Oligodon spp.*) because of head pattern.

Scalation (after Schulz)

Scales 23 or 21 : 23 or 21 : 19 or 17 (rarely 21) rows, mostly smooth (rarely some weakly keeled). Ventrals 200-241; anal divided; subcaudals 59-82, paired. Rostral large; supralabials 7 (3rd and 4th touching eye) or 8 (4th and 5th touching eye) rarely 6; loreal very small, or absent; preocular 1; postoculars 1 or 2; temporals 2+2 or 2+3.

Natural History/ Behavior

Active in the morning and early evening. Inhabits subtropical and montane forests. Found on forest paths, in rocky areas with dense vegetation, rubble, holes in the ground and agricultural areas. Eats mice and shrews. Secretive, enters rodent burrows to eat newborn rodents. Prey grasped and constricted with one or two body coils. May also press prey against firm object until prey dies. Males grasp females by the neck while mating. Lays 6-10 eggs. If threatened, may vibrate tail and/or bite.

Distribution

India: only recorded from eastern Arunachal Pradesh (Changlang district) between 500m-3000m (1640-9840ft). Also Myanmar, China and Taiwan.

Look-alikes

Juvenile King Cobra.

ADULT - Mainland China

KLAUS-DIETER SCHULZ

Mandarin Trinket Snake

Euprepiophis mandarinus

NON VENOMOUS, RARE

At hatching 300mm (12in); adult length 1000-1200mm (39-47in); maximum 1740mm (69in)

Indian Rat Snake

Ptyas mucosa

NON VENOMOUS, COMMON

At hatching 320-470mm (13-19in)
Adults 2000mm (79in)
Maximum 3500mm (138in)

Description

Scales smooth or keeled (upper rows). Head broader than neck. Large eye has round pupil. Varies greatly in color. Pale yellow, olive, brown, gray or black. Body lightly or strongly marked with black; markings usually distinct on tail. Lip scales usually separated by vertical black lines. Underside often has prominent dark cross-bars.

Scalation

Scales in 17, 18 or 19 : 17 or 16 : 14 rows, smooth or upper rows more or less distinctly keeled. Ventrals 190-213; anal scale divided; subcaudals 100-146, paired. Normally 2 or 3 loreals and a presubocular.

Natural History/ Behavior

Very fast. An alert, active, diurnal hunter. Climbs well. Inhabits a wide range of habitats – coastal, arid, wet, mountainous, open fields as well as forests. Rat holes and termite mounds are preferred dwellings. Seen in paddy fields, high grass, trees, storage places, and houses. Feeds on frogs, toads, lizards, birds, rats, bats, snakes and in one case a young tortoise. Rat snakes do not constrict but subdue larger prey by holding it down. Pressure is applied until the animal is still. Smaller prey is simply swallowed alive. Clutches of 8-22 eggs usually laid between March-September (sometimes in winter months). Usually quick to escape. If cornered, will inflate throat and forebody, emit a moan or growl, and strike vigorously. Large rat snakes can inflict painful (though harmless) bites, but calm down with gentle handling.

Distribution

Throughout South and Southeast Asia, from sea level to 4000m (13,120ft).

Look-alikes

Cobras.
Banded Racer.
Indo-Chinese Rat Snake.
King Cobra.

ADULTS - Main picture: Pune, Maharashtra, India • Inset: Tamil Nadu, India

Main picture: AC • Inset: RW

Indian Rat Snake

Ptyas mucosa

NON VENOMOUS, COMMON

At hatching 320-470mm (13-19in); adults 2000mm (79in); maximum 3500mm (138in)

Indian Rat Snake

Ptyas mucosa

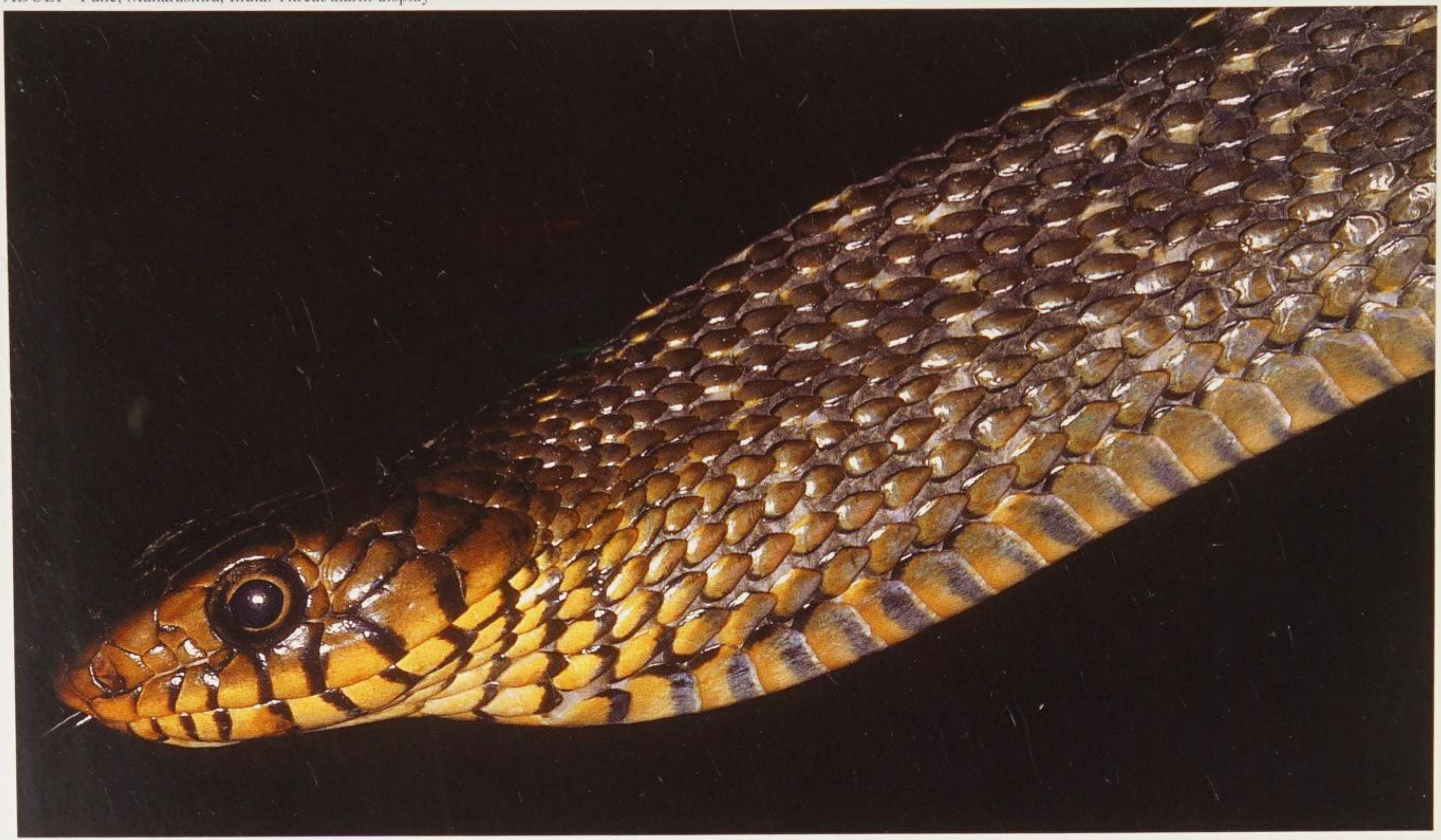
NON VENOMOUS, COMMON

At hatching 320-470mm (13-19in); adults 2000mm (79in); maximum 3500mm (138in)

SAMEER GHODKE

ADULT - A.N.E.T. Base, North Wandoor, South Andaman Island, India

ADULT - Pune, Maharashtra, India. Threat/alarm display



Indian Rat Snake

Ptyas mucosa

NON VENOMOUS, COMMON

At hatching 320-470mm (13-19in); adults 2000mm (79in); maximum 3500mm (138in)

Indo-Chinese Rat Snake

Ptyas korros

NON VENOMOUS, COMMON

At hatching 360-380mm (14-15in)
Maximum 2680mm (106in)

Description

Scales smooth or weakly keeled. Head broader than neck. Large eye has round pupil outlined by a distinct broad, black ring (the eye of the Indian Rat Snake has no such margin). Forebody olive green or yellowish-brown; hindbody brown with black-edged/ tipped scales. Underside yellowish-white, sometimes edged with black. Young olive green with yellow or white, narrow, dotted cross-lines.

Scalation

Scales in 15 : 15 (rarely 13 or 17) : 11 rows; smooth, or weakly keeled on hindbody. Ventrals 160-187; anal scale divided; subcaudals 120-151, paired. Normally 2 or 3 loreals and a presubocular; supralabials 7 or 8 (3rd and 4th or 4th and 5th touching eye).

Natural History/ Behavior

Diurnal. Both arboreal and terrestrial. Found in forests as well near human habitation. Sleeps on bushes and trees. Eats rodents, birds, lizards, and frogs. Females lay 4-12 eggs in June-July.

Distribution

India: the Northeast. Also Myanmar, China, Thailand, Malaysia, Singapore, Taiwan, and Bali. Found up to 3000m (9800ft).

Look-alikes

Indian Rat Snake.
King Cobra.

ADULT - Itanagar, Papum Pare district, Arunachal Pradesh, India

Indo-Chinese Rat Snake

Ptyas korros

NON VENOMOUS, COMMON

At hatching 360-380mm (14-15in); maximum 2680mm (106in)

Green Rat Snake

Ptyas nigromarginata

NON VENOMOUS, UNCOMMON

Maximum 2560mm (101in)

Description

Upper scale rows keeled. Head broader than neck. Large eye has round pupil. Head brown. Forebody has green scales edged with black; rest of body and tail lined with bold black and yellowish-brown stripes that finally turn black and white. One of the premier herpetologists of his time, Frank Wall wrote of this species, "It is difficult to realize from museum specimens the extreme beauty and brilliancy of coloring of many snakes in life, and this forcibly applies in the present instance. My specimen was a bright green of so soft a hue that the skin looked like velvet. This merged into a yellowish green anteriorly, and yellow posteriorly, the latter merging into a rich black on the tail. The black margins to the scales served to enhance the beauty of the dorsal green. The head was olive-brown with a bright yellow patch low on the temporal region. The chin and throat were white, sparsely speckled at first, more heavily later, with light caerulean blue, which merged to blue-green, then pale greenish, and finally, yellow in the length of the snake. Some gray speckling was seen beneath the tail."

Scalation

Scales in 18 or 16 : 16 or 14 : 14 rows, (upper rows keeled). Ventrals 189-209; anal scale divided; subcaudals 120-142, paired. Supralabials 8 (4th and 5th touching eye) rarely 9 (5th and 6th touching eye); loreal 1; preocular 1; presubocular 1; postoculars 2; temporals 2+2.

Natural History/ Behavior (after Tillack)

Poorly known. Eats frogs. Six captive juveniles all accepted frogs but refused small mammals.

Distribution

India: the Northeast from Sikkim and Darjeeling to Arunachal Pradesh. Also Nepal, Bhutan, China, Myanmar, and Bangladesh. Found up to 2134m (7000ft).

Look-alikes

None.

ADULT - Near Gandhigram village, Changlang district, Arunachal Pradesh, India

Green Rat Snake

Ptyas nigromarginata

NON VENOMOUS, UNCOMMON

Maximum 2560mm (101in)

Green Rat Snake

Ptyas nigromarginata

NON VENOMOUS, UNCOMMON

Maximum 2560mm (101in)

Main Picture: AC • Inset: FRANK TILLACK

Main Picture: ADULT - Near Gandhigram village, Changlang district, Arunachal Pradesh, India • Inset: JUVENILE - Yunnan, China

JUVENILE - Yunnan, China

FRANK TILLACK

Green Rat Snake *Ptyas nigromarginata*

NON VENOMOUS, UNCOMMON Maximum 2560mm (101in)

Glossy-bellied Racer

Coluber ventromaculatus

MILDLY VENOMOUS, UNCOMMON

Maximum 1260mm (50in)

Description

Long, smooth-scaled; stouter than the Eastern Cliff Racer. Head distinctly broader than neck; large eye has round pupil. Tail long and thin. Pale grayish-white, sand colored or pale reddish-brown back with zigzag, short, darker grayish-brown cross-bands of variable width – formed by brown or gray scales, edged with black. Head evenly marked with brown or gray; nape usually has short black vertebral stripe. Smaller spots on sides of body alternate with markings on back and may extend to outer edges of belly scales. Pattern indistinct on hind body and tail. Underside lustrous, pearly white.

Scalation

Scales in 19 : 19 : 13 or 15 rows, smooth. Ventrals angulate laterally: males 195-209, females 199-213; anal divided; subcaudals paired: males 108-115, females 97-106. Supralabials 9, rarely 8 (5th and 6th touching eye); preoculars 2; postoculars 2-3; temporals usually 2+3.

Natural History/ Behavior

Diurnal/ crepuscular; occasionally found at night. Mostly terrestrial, sometimes seen on low bushes. Found in sandy desert areas and adjacent patches of scrub, even *Euphorbia* clumps. Eats geckos, lizards, and small mammals (mice, shrews, bats). Hibernates during colder months. Lays 6-10 eggs around May-June that hatch in July-August. Bites may cause pain, bleeding and swelling.

Distribution

India: Jammu & Kashmir; Rajasthan (Sikar); Gujarat (Khandesh). Records from Uttaranchal (Almora) need to be confirmed as this species is not a highland form. Also Pakistan, Uzbekistan and Israel. Found at low altitudes, usually below 200m (650ft).

Look-alikes

Eastern Cliff Racer.
Indian Rat Snake.
Banded Racer.
Sind Awl-headed Snake.

ADULT (DEAD SPECIMEN) - Sikkar district, Rajasthan, India

KEDAR BHIDE

Glossy-bellied Racer

Coluber ventromaculatus

MILDLY VENOMOUS, UNCOMMON

Maximum 1260mm (50in)

Eastern Cliff Racer

Coluber ladacensis

MILDLY VENOMOUS, UNCOMMON

Maximum 1043mm (41in)

Description

Long, smooth-scaled; more slender than the Glossy-bellied Racer. Head distinctly broader than neck; large eye has round pupil. Tail long and thin. Pale gray, brownish-gray or olive back. Nape usually has 1-2 short cross-bands. Forebody has zigzag, indistinct, short darker grayish-brown cross-bands, or alternating spots. Side of body has smaller spots. Hind body and tail unmarked. Pale yellow or white color of lip scales borders eye, both in front and behind. Indistinct band (same color as top of head) below eye. Underside white, usually with dark spots at outer edges.

Scalation

Scales in 19:19:13 or 11 rows, smooth. Ventrals 201-230; anal divided; subcaudals 93-148, paired. Supralabials 9, rarely 8 (5th and 6th touching eye); preoculars 2; postoculars 2 or 3; temporals usually 2+3.

Natural History/ Behavior

Diurnal. Found in rocky areas near cliffs and canyons, sometimes in village houses. Eats geckos, lizards, small mammals, small birds and their eggs. Lays 8 eggs in May-June. Bites may cause pain and swelling.

Distribution

India: Jammu & Kashmir. A hill snake, found between 350m to 3000m (1150-9840ft). Also Pakistan to Turkmenistan.

Look-alikes

Glossy-bellied Racer.
Mountain Racer (not featured).
Indian Rat Snake.

ADULT - Turkmenistan

FRANK TILLACK

Eastern Cliff Racer *Coluber ladacensis*

MILDLY VENOMOUS, UNCOMMON Maximum 1043mm (41in)

Banded Racer

Argyrogena fasciolata

NON VENOMOUS, UNCOMMON*

At hatching 150mm (6in)
Adults 750mm (30in)
Maximum 1347mm (53in)

Description

Scales smooth. Light or dark brown. Snout tapered. Young with brilliant white head markings and bright white cross-bands. Adults usually without bands. Belly white or yellowish-white.

Scalation

Scales in 23 or 21 : 23 or 21 : 17 or 15 rows, smooth. Ventrals 191-232, obtusely angulate laterally; anal divided; subcaudals 77-92, paired. Usually a presubocular; temporals 2+3 or 3+3; supralabials 8 rarely 9 (4th and 5th touching eye).

Natural History/ Behavior

Diurnal. Found in rodent burrows, rock piles, and heavy brush. Young eat insects and frogs; adults eat field mice and metad rats that are killed by constriction or applying body pressure. In South India, 2-6 eggs laid in October. If threatened or captured, may flatten forebody to display a narrow "hood" – causing some to mistake it for a cobra.

Distribution

India: throughout most of the peninsular plains (from Baroda to Gwalior) to the Himalayas (south of Nepal); in the east to West Bengal south to Tirunelveli (except southeast coast). *Common in parts of Maharashtra. Also found in Pakistan, Bangladesh and northern Sri Lanka.

Look-alikes

Spectacled Cobra.
Indian Smooth Snake.
Indian Rat Snake.
Stout Sand Snake.

ADULT - Pune district, Maharashtra, India

Banded Racer

Argyrogena fasciolata

NON VENOMOUS, UNCOMMON*

At hatching 150mm (6in); adults 750mm (30in); maximum 1347mm (53in)

Banded Racer

Argyrogena fasciolata

NON VENOMOUS, UNCOMMON*

At hatching 150mm (6in); adults 750mm (30in); maximum 1347mm (53in)

ADULT - Marunji village, Pune district, Maharashtra, India. Threat/alarm display

AC

Top: ADULT - Pune district, Maharashtra, India • Bottom: JUVENILE - Pune district, Maharashtra, India

Banded Racer

Argyrogena fasciolata

NON VENOMOUS, UNCOMMON*

At hatching 150mm (6in); adults 750mm (30in); maximum 1347mm (53in)

Slender Racer

Coluber gracilis

NON VENOMOUS, RARE

Maximum 930mm (37in)

Description

Small, slender, smooth-scaled. Head broader than neck; large eye with round pupil. Tail long and thin. Predominantly brown, with narrow white, black-edged cross-bars on the back, which widen on the sides to connect with adjacent bands. Markings indistinct on hindbody. Top of head has 2 or 3 white, black-edged bars. Belly scales yellowish-white with small black spots on outer edges. Often mistaken for a kukri snake on account of its head markings. However, the Slender Racer has a much longer tail than any South Asian kukri snake (for those who count scales – subcaudals 118-127; compared to 69 – the highest on any of our kukris).

Scalation

Scales in 21 : 21 : 15 rows, smooth. Ventrals 206-222; anal divided; subcaudals 118-127, paired. One large preocular with a smaller preocular below. (Smith termed the lower scale a subocular); postoculars 2; temporals 2+2; supralabials 9 (5th and 6th touching eye).

Natural History/ Behavior

Almost nothing known. Diurnal. Eats skinks and geckos, which it may constrict with hindbody and tail. Lays eggs.

Distribution

Endemic to India. Only recorded from Maharashtra (Pune district, Nane Ghat, Phaltan) and Madhya Pradesh (Asirgarh). Reports from Pakistan are doubtful and need confirmation.

Look-alikes

Kukri snakes.

ADULT - Pune district, Maharashtra, India

Slender Racer

Coluber gracilis

NON VENOMOUS, RARE

Maximum 930mm (37in)

Slender Racer

Coluber gracilis

NON VENOMOUS, RARE

Maximum 930mm (37in)

ADULT - Pune district, Maharashtra, India

ADULT - Pune district, Maharashtra, India

Slender Racer

Coluber gracilis

NON VENOMOUS, RARE

Maximum 930mm (37in)

Black-headed Royal Snake

Spalerosophis atriceps

NON VENOMOUS, UNCOMMON

At hatching 250-470mm (10-19in)
Adults 1500–2000mm (59-79in)

Description

Scales weakly keeled. Head distinctly broader than neck; snout rounded; eye has round pupil. Light yellowish-brown or orange with irregular blue-black or dark brown markings that look like "spattered tar" on the back. Head partly or fully jet-, blue-black, or wine red with blue-black patches. Neck often pale wine red. Underside glossy rose pink. Young have pale, even blotches without black markings. Single scale on snout tip (rostral) broader than high (in the Red-spotted Royal Snake this scale is much higher than its breadth).

Scalation

Scales in 27, 29, 31 or 33 rows at midbody, 2 or 4 less on neck and 21 or 19 posteriorly; obtusely keeled. Ventrals 216-250 (a female from Gilgit had 278); anal usually divided; subcaudals 82-112, paired. Rostral broader than high; prefrontals broken up into several scales; loreals 2, one behind the other; preoculars 2; postoculars 3 or 4; supralabials 10-13 separated from eye by a series of suboculars; anterior temporals 3 or 4, small.

Natural History/ Behavior

Nocturnal. An excellent climber, it may be found on trees and low bushes. Lives in rat holes, rocky areas, and crevices. Eats rodents, birds, and lizards. Lays eggs. When disturbed, coils and hisses loudly, but rarely bites.

Distribution

India: Gujarat (Kutch), drier parts of Rajasthan, Punjab, Kashmir, and Himachal Pradesh up to 2000m (6560ft). Also Pakistan and a single record from Nepal.

Look-alikes

Other royal snakes.

ADULT - Rajasthan, India

KEDAR BHIDE

Black-headed Royal Snake

Spalerosophis atriceps

NON VENOMOUS, UNCOMMON

At hatching 250-470mm (10-19in); adults 1500–2000mm (59-79in)

Black-headed Royal Snake

Spalerosophis atriceps

NON VENOMOUS, UNCOMMON

At hatching 250-470mm (10-19in), adults 1500–2000mm (59-79in)

KEDAR BHIDE

ADULT - Rajasthan, India

ADULT - Rescued individual, probably from Rajasthan, India

AC

Black-headed Royal Snake

Spalerosophis atriceps

NON VENOMOUS, UNCOMMON

At hatching 250-470mm (10-19in), adults 1500–2000mm (59-79in)

Red-spotted Royal Snake

Spalerosophis arenarius

NON VENOMOUS, RARE*

Maximum 1280mm (50in)

Description

Scales weakly keeled (most distinct on hindbody). Head distinctly broader than neck; snout more pointed than that of Black-headed Royal Snake; eye has round pupil. Ash gray, cream or pale brown back with caramel reddish-brown markings; those on midline of back largest. Markings are arranged in 5-7 alternating series and merge to form stripes on tail. Upper surface of head usually has a curved band before eyes, symmetrical markings between eyes, and another curved mark on back of head. First curved band on head continues as an oblique streak from eye to behind mouth. Head markings same color as those on back. Neck has two or three short stripes. Underside glossy white. Single scale on snout tip (rostral) narrow, much higher than broad (in the Black-headed Royal Snake this scale is broader than high).

Scalation

Scales in 25 : 25 or 27 : 17 rows, obtusely keeled (most strongly on hindbody). Ventrals 226-257; anal entire; subcaudals 71-86, paired. Supralabials 9 to 11, separated from eye by a series of small suboculars; rostral distinctly higher than broad, separates internasals for half or more than half their length; prefrontals broken up into 3 or 4 small shields; loreals 2; preoculars 2; postoculars 2 or 3; anterior temporals 3, small.

Natural History/ Behavior

Nocturnal, sometimes seen by day. Terrestrial but climbs well. Feeds on lizards, mice, birds and their eggs. Breeds March-June. Lays 8-10 elongate eggs. When cornered, may hiss and strike repeatedly.

Distribution

India: Rajasthan (Sikar district). *Though rare, on one occasion 7 snakes were found in a single night. Also Pakistan.

Look-alikes

Other royal snakes (especially juveniles).

Main Picture and Inset top right: ADULT - Sikkar district, Rajasthan, India • Inset top left: JUVENILE - Rajasthan, India

KEDAR BHIDE • Inset top left: DHARMENDRA KHANDAL

Red-spotted Royal Snake

Spalerosophis arenarius

NON VENOMOUS, RARE*

Maximum 1280mm (50in)

Günther's Stripe-necked Snake

Liopeltis frenata

NON VENOMOUS, UNCOMMON

At hatching 190mm (8in)
Maximum 760mm (30in)

Description

Slender-bodied; smooth-scaled. Head broader than neck; large eye has round pupil. Tail long. Olive-brown back has two broad black stripes starting from behind eyes. Scales black-edged, sometimes also white-edged. Some juveniles resemble adults in color and pattern, but we have also seen gray, black-striped juveniles. It is as yet unclear whether gray juveniles turn brown as they mature or remain gray. Throat yellowish; underside white. Tongue orange.

Scalation

Scales in 15 : 15 : 15 rows, smooth. Ventrals 140-172; anal divided; subcaudals 70-105, paired. Supralabials 7 (3rd and 4th touching eye); preocular 1; postoculars 1 or 2; temporals 1+2; nostril in undivided nasal.

Natural History/ Behavior

Probably diurnal. Terrestrial, seen on forest paths. Twice seen by us close to puddles containing tadpoles and frogs. Lays at least 5 eggs (found by us on two occasions) in standing, dead bamboo. Eggs hatch in February-March in Arunachal Pradesh. Juveniles are gentle and inoffensive, flick their tongues constantly and when handled, may coil the hind body and tail around a finger.

Distribution

India: Meghalaya (Khasi Hills) to eastern Arunachal Pradesh (Deban, Patkai Hills). Also Myanmar and Laos. Found between 610-1830m (2000-6000ft).

Look-alikes

Stoliczka's Stripe-necked Snake (not featured).

JUVENILE - Miao, Changlang district, Arunachal Pradesh, India

Günther's Stripe-necked Snake

Liopeltis frenata

NON VENOMOUS, UNCOMMON

At hatching 190mm (8in); maximum 760mm (30in)

Sind Awl-headed Snake — *Lytorhynchus paradoxus*

NON VENOMOUS, RARE — Maximum 380mm (15in)

Description

Body slightly triangular in cross section and smooth scaled. Head slightly broader than neck; snout unusually pointed; large eye has vertically elliptical pupil; nostril – narrow slit between two large scales. Tail short. Gray or pale brown with a series of H or X shaped dark brown or sooty black marks connected by a white stripe running down the midback. Smaller, less distinct brown spots on sides of body alternate with brown marks on back. Large brown mark on top of head; distinct brown streak from eye to angle of mouth, and a similar colored mark below eye. Underside white. (The look-alike Glossy-bellied Racer has a rounded snout, circular nostrils, and a long, thin tail).

Scalation

Scales in 21 or 23:19 (rarely 21):15 rows, smooth. Ventrals 169-185, angulate laterally; anal divided; subcaudals 40-53, paired. Rostral four-sided, pointed in front and angular or rounded behind. Frontal expanded anteriorly; touching, or just separated from preocular. Mental with small projection in front that fits notch at base of rostral. Supralabials 8 (5^{th} touching eye); preoculars 2; presubocular 1; loreal 1; postoculars 2; temporals 2+2 or 2 +3.

Natural History/ Behavior

Nocturnal and terrestrial. Inhabits sand dunes; sometimes found at base of plants. When pursued, escapes by digging into sand with snout. Narrow, slit-like nostrils are an adaptation to the sand-burrowing habit. When alarmed, coils up like a spring, sometimes hiding its head. Lays eggs. A captive specimen laid two eggs in early May.

Distribution

India: Rajasthan (Sikar district). Also Pakistan (restricted to a few localities in the Thar Desert). Feeds on geckos in the wild; captives accepted small lizards.

Look-alikes

Glossy-bellied Racer.
Saw-scaled Viper.

ADULT - Sikkar district, Rajasthan, India

KEDAR BHIDE

Sind Awl-headed Snake

Lytorhynchus paradoxus

NON VENOMOUS, RARE

Maximum 380mm (15in)

Indian Smooth Snake

Coronella brachyura

NON VENOMOUS, RARE

Maximum 545mm (22in)

Description

Smooth-scaled. Head slightly broader than neck; large eye has round pupil. Snout not pointed. Light to dark brown back, usually with a light checkered pattern of the same color on forebody. Underside creamy white. [The Banded Racer has a pointed snout and a longer tail].

Scalation

Scales in 23 : 23 : 19 rows, smooth. Ventrals 200-224, rounded; anal entire; subcaudals 46-53, paired. Loreal 1; preocular 1; postoculars 2; temporals 2+2; supralabials 8 (4th and 5th touching eye).

Natural History/ Behavior

Very little known. Specimens found near stone pile in arid area but one was found in a tree. Burrowing behavior observed. Captive specimen constricted and ate small geckos. Probably feeds on skinks and garden lizards as well. Observations based on a captive specimen suggest that it is an active hunter. Mild-tempered.

Distribution

Endemic to India. Known from a few localities in Maharashtra.

Look-alikes

Banded Racer.

ADULT - Maharashtra, India

AC

Indian Smooth Snake

Coronella brachyura

NON VENOMOUS, RARE

Maximum 545mm (22in)

Indian Smooth Snake

Coronella brachyura

NON VENOMOUS, RARE

Maximum 545mm (22in)

ADULT - Maharashtra, India

AC

ADULT - Maharashtra, India

Indian Smooth Snake

Coronella brachyura

NON VENOMOUS, RARE

Maximum 545mm (22in)

White-barred Kukri Snake

Oligodon albocinctus

NON VENOMOUS, UNCOMMON

Adults 600–740mm (24-29in)
Maximum 914 mm (36in)

Description

Scales smooth. Head slightly or not broader than neck, with typical Λ shaped marks seen on most kukri snakes; eye has round pupil. Short tail has sharply pointed tip. Single scale at tip of snout (rostral) extends well onto upper surface of head. Two color forms: (i) Typical form reddish or pinkish-brown back with white, yellow or pale brown cross-bands outlined in black. Juveniles more red than brown, with underside pale pink. In older snakes, body scales are brown, speckled with black and have red edges. Underside white with large black, rectangular spots on outer edges of belly scales. (ii) Brown with black or darker brown black-edged cross-bands or big, rounded spots. Some spots deeply notched at midline and resemble a horizontal 8. Adults of this form may be almost entirely patternless. Some authorities suspect the two forms represent distinct species. Round black eye pupil has a distinct yellowish or brownish-white ring (iris) around it. (A venomous look-alike, Macclelland's Coral Snake has an almost entirely black eye).

Scalation (after Wagner)

Scales in 19 : 17 (rarely 19 in females) : 15 (rarely 17 in females) rows, smooth. Ventrals: males 177-195, females 186-207, angulate laterally; anal entire; subcaudals: males 58-68, females 47-60, paired. Supralabials 7 (3rd and 4th touching eye), rarely 6 (3rd and 4th touching eye); loreal usually present; preocular 1; postoculars 2; temporals 1+2. A juvenile of the typical form 275mm in length, with umbilical scar on ventrals 165-167 was seen in early June (Arunachal Pradesh).

Natural History/ Behavior

Probably nocturnal like other kukri snakes. We have seen this species out during early evening. Chiefly a hill species. Many have been found on the tea estates of Upper Assam and Darjeeling. Eats mice and snake (and possibly other reptile) eggs. Lays eggs. A timid snake. Like most snakes, tries to escape when encountered. If provoked, flattens body and curls up end of tail. Intensely dislikes being handled; will thrash vigorously and may inflict painful slashes with its blade-like teeth.

Distribution

India: Sikkim, West Bengal and the Northeast to Arunachal Pradesh. Also Myanmar, Bangladesh and Nepal. Found up to about 1980m (6500ft).

Look-alikes

Macclelland's Coral Snake.
Black-barred Kukri Snake.

Main Picture and Inset top: ADULTS • Inset bottom: JUVENILE. All near Gandhigram village, Changlang district, Arunachal Pradesh, India

White-barred Kukri Snake

Oligodon albocinctus

NON VENOMOUS, UNCOMMON

Adults 600–740mm (24-29in); maximum 914 mm (36in)

Russell's Kukri Snake — *Oligodon taeniolatus*

NON VENOMOUS, UNCOMMON

At hatching 75-120mm (3-5in)
Adults 300mm (12in)
Maximum 590mm (23in)

Description

Scales smooth. Head slightly or not broader than neck, with typical Λ shaped marks seen on most kukri snakes; eye has round pupil; short tail has pointed tip. Markings on head and back extremely variable. Head pattern: top of brown head usually has two dark brown, black-edged, bow-, or Λ shaped marks; closely followed by a broad band or blotch on neck, often with a bold white, cream or pale brown dark-edged median streak. Common variations include head markings that merge almost entirely, giving the head a mostly dark brown appearance, or they may join only along the middle. Markings sometimes faint. Pattern on back: (i) Pale brown with a series of thin black cross-lines formed by black scale edges; often with four dark brown stripes from head to tail. There may be an additional thin cream-colored stripe along midback. (ii) A series of irregular (sometimes white-edged) spots – a large median one with a smaller one on each side. (iii) Large, elongate or squarish, dark brown, black-edged spots (sometimes deeply notched to resemble a horizontal 8). (iv) Large, dark brown spots, edged with black, then white. Spots paired or alternate on opposite sides of vertebral line. Underside in all forms white or cream; outer edges of belly scales occasionally with small dark brown or black spots.

Striped forms are usually found in dry areas, while blotched forms inhabit moister regions. Though currently dealt with as a single species, it is probable that the forms may represent more than one species.

Scalation (after Wagner)

Scales in 15 rows at midbody, smooth. Ventrals: males 157-201, females 154-219, slightly angulate laterally; anal divided; subcaudals 27-59, paired. Supralabials 7 (3rd and 4th touching eye), rarely 6 or 8; loreal 1; preocular 1 (rarely a presubocular); temporals 1+2.

Natural History/ Behavior

Though active by day and night, frequently seen at dusk. Found in forests as well as near human habitation. Climbs well. One was seen 3m (10ft) high on a wall at 2300hrs, 25km (15miles) from Bangalore (Karnataka). Eats reptile and amphibian eggs; captive specimens ate small lizards. Has sharp, flattened, curved teeth useful for slicing into reptile eggs. Young feed on insects, grubs and spiders. Lays 3-9 eggs in late June. The enlarged rostral suggests that this is a burrower and indeed, captive specimens will burrow into cage soil. Generally quite docile, will flatten body and strike sideways when provoked.

ADULT - Marunji village, Pune district, Maharashtra, India

SHOMEN MUKHERJEE

Russell's Kukri Snake

Oligodon taeniolatus

NON VENOMOUS, UNCOMMON

At hatching 75-120mm (3-5in); adults 300mm (12in); maximum 590mm (23in)

Russell's Kukri Snake

Oligodon taeniolatus

NON VENOMOUS, UNCOMMON

At hatching 75-120mm (3-5in)
Adults 300mm (12in)
Maximum 590mm (23in)

Distribution

India: hills and plains of peninsular and northern India; western Himalayas (Garhwal district). Also Pakistan, Bangladesh and Sri Lanka.

Look-alikes

Other kukri snakes.
Saw-scaled Viper.
Common Cat Snake.
Slender Racer.

ADULT - Pune district, Maharashtra, India

Russell's Kukri Snake

Oligodon taeniolatus

NON VENOMOUS, UNCOMMON

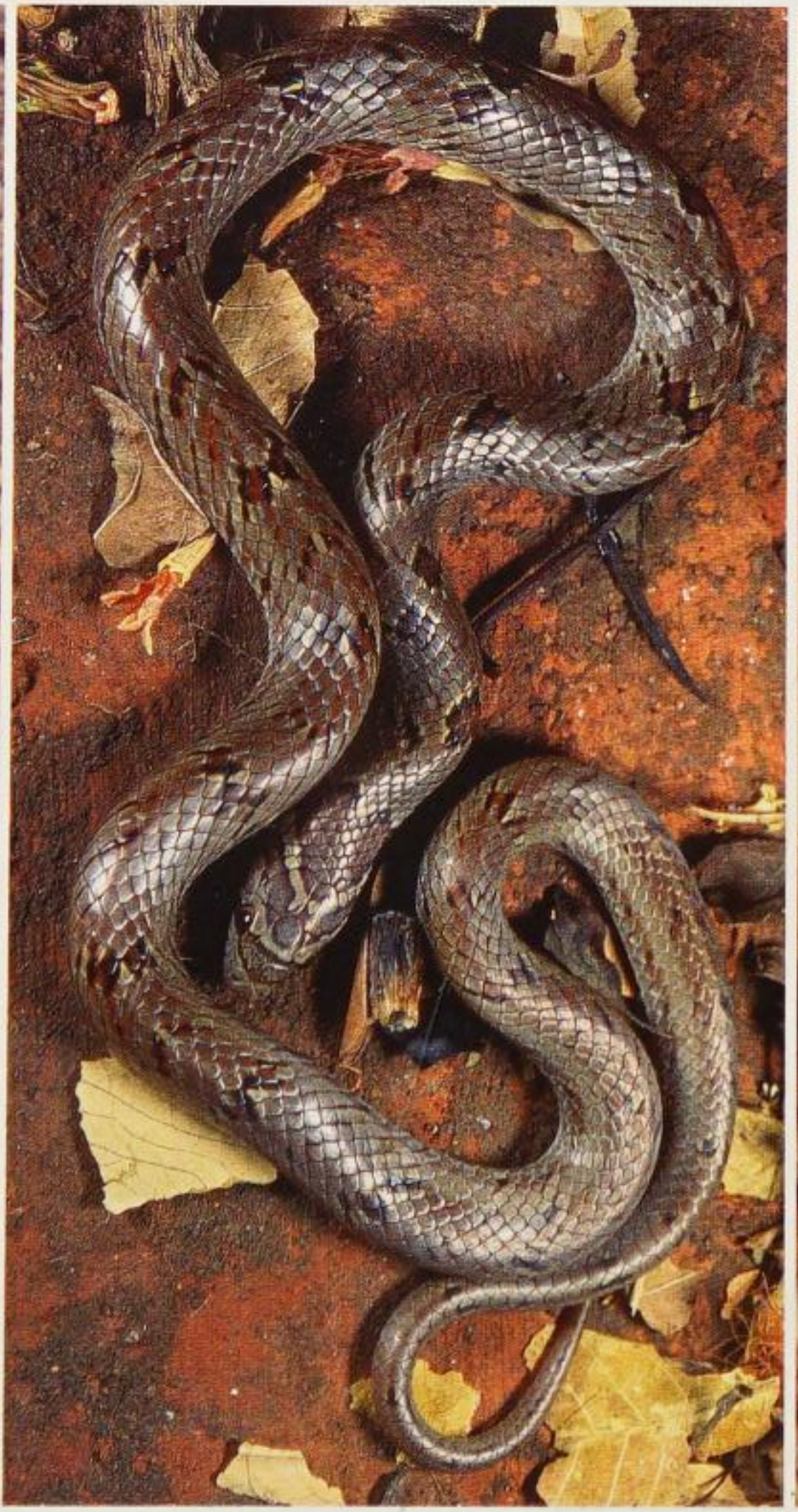
At hatching 75-120mm (3-5in); adults 300mm (12in); maximum 590mm (23in)

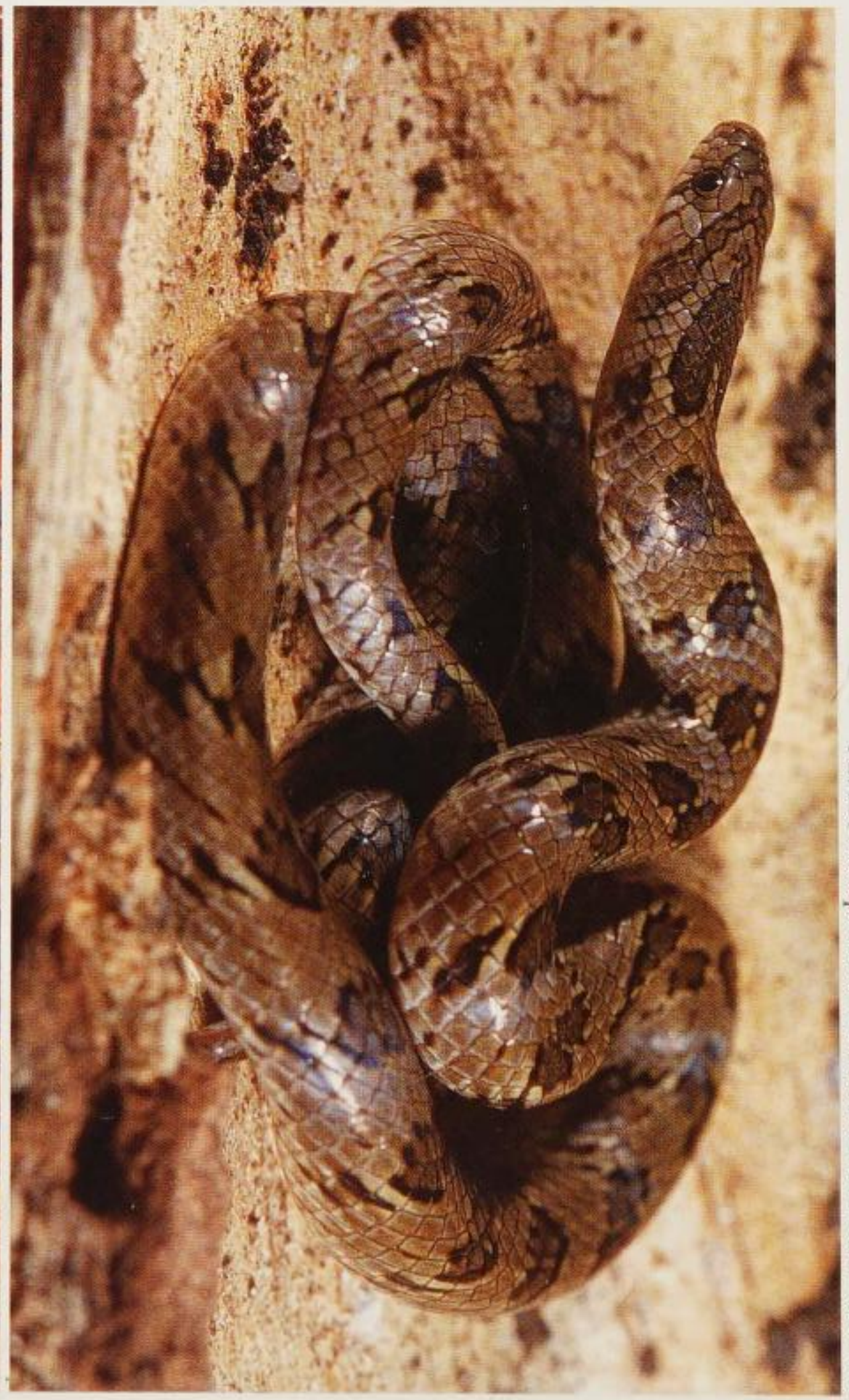
Russell's Kukri Snake

Oligodon taeniolatus

NON VENOMOUS, UNCOMMON

At hatching 75-120mm (3-5in); adults 300mm (12in); maximum 590mm (23in)





All AC except bottom: KRUSHNAMEGH KUNTE

ADULTS - Maharashtra, India, except bottom: Shendurni WLS, Thiruvananthapuram, Kerala, India

Russell's Kukri Snake

Oligodon taeniolatus

NON VENOMOUS, UNCOMMON

At hatching 75-120mm (3-5in); adults 300mm (12in); maximum 590mm (23in)

Common Kukri Snake

Oligodon arnensis

NON VENOMOUS, COMMON

At hatching 80mm (3in)
Adults 350mm (14in)
Maximum 700mm (28in)

Description

Scales smooth. Head slightly or not broader than neck, with typical Λ shaped marks seen on most kukri snakes; eye has round pupil. Short tail has pointed tip. Single scale at tip of snout (rostral) extends well onto upper surface of head. Brown back with 10-20 distinct black or dark brown bands and three Λ shaped marks of same color on head. Width of body cross-bands variable. Belly glossy white. Often mistaken for the Banded Krait (which has body – triangular in cross-section, enlarged hexagonal scales along the midback and distinctly rounded tail tip).

Scalation (after Wagner)

Scales in 17 : 17 : 15 rows, smooth. Ventrals: males 161-199, females 166-201, angulate laterally; anal usually divided; subcaudals 41-59, paired. Loreal often united with prefrontal (hence absent); supralabials 7 (3rd and 4th touching eye), rarely 6 or 8; anterior temporal 1.

Natural History/ Behavior

Nocturnal and crepuscular. Found in termite mounds, caves, crevices, tree holes and old houses. Has sharp, flattened, curved teeth useful for slicing reptile eggs. Young feed on insects and their larvae, spiders and gecko eggs; adults eat reptile eggs, geckos, skinks and small mice. Lays 3-9 eggs at a time; young seen in Maharashtra March-June; Chennai in September. Generally quite docile.

Distribution

Throughout India (except the Andaman & Nicobar Islands and possibly the extreme Northeast). Also Pakistan, Nepal, Bangladesh, Sri Lanka.

Look-alikes

Other kukris.
Banded Krait.

Main picture: ADULT - Tamil Nadu, India • Inset top: JUVENILE - Pune, Maharashtra, India • Inset bottom: ADULT - Pune, Maharashtra, India

Main picture: RW • Insets: AC

Common Kukri Snake

Oligodon arnensis

NON VENOMOUS, COMMON

At birth 80mm (3in); adults 350mm (14in); maximum 700mm (28in)

Western Kukri Snake

Oligodon affinis

NON VENOMOUS, UNCOMMON

Maximum 340 mm (13in)

Description

Scales smooth. Head slightly or not broader than neck; eye has round pupil. Short tail has sharply pointed tip. Single scale at tip of snout (rostral) extends well onto upper surface of head. Pale grayish-brown back with darker brown, broken cross-lines, most of which have light margins. Upper surface of head has a black, scalloped or bird silhouette-like marking. Underside pale yellow or white with rectangular black marks; the two colors almost equally distributed.

Scalation (after Wagner)

Scales in 17 rows at midbody, smooth. Ventrals: males 128-133, females 130-145, not angulate laterally; anal 2; subcaudals: males 31-36, females 23-30, paired. Supralabials 7 (3^{rd} and 4^{th} touching eye); loreal absent; anterior temporal 1.

Natural History/ Behavior

Poorly known. Nocturnal, like other kukris. One was found in an evergreen forest 50 km from Thiruvananthapuram (Arippa) in January. On handling, may poke with tail tip and bite. Probably feeds on reptile eggs, geckos, skinks and small mice.

Distribution

Endemic to India. Western Ghats, south of the Goa Gap (Wynad to Thiruvananthapuram).

Look-alikes

Other kukri snakes.
Hump-nosed Pit Viper.

ADULT - Valparai, Tamil Nadu, India

S.U. SARAVANAKUMAR

Western Kukri Snake

Oligodon affinis

NON VENOMOUS, UNCOMMON

Maximum 340 mm (13in)

Nikhil's Kukri Snake

Oligodon nikhili

NON VENOMOUS, RARE

Maximum >423mm (17in)

Description

Scales smooth. Head slightly or not broader than neck, with typical Λ shaped marks seen on most kukri snakes; eye has round pupil. Short tail has sharply pointed tip. Light brown back with four chocolate brown stripes; upper pair most distinct and runs from the two Λ shaped head markings to tail-tip. Outer two stripes begin slightly further back, are partly broken up and end at base of tail (anal scale). Most upper body scales have a small black dot. Side of body has a series of ill-defined, widely spaced blotches arranged in a line. Underside white, checkered with two lines of small black blotches.

Scalation

Scales in 17 : 15 : 15 rows, smooth. Ventrals 144; anal divided; subcaudals 33, paired. Loreal absent; preocular 1; postoculars 2; anterior temporal 1; supralabials 7 (3rd and 4th touching eye).

Natural History/ Behavior

Not known. Like other kukris, this little snake probably eats insects and their larvae, small lizards and lizard/ snake eggs.

Distribution

Endemic to India. Only one snake has ever been found under a piece of cement on a roadside parapet wall – in Tiger Shola, a small patch of rain forest near Shembaganur, Palni Hills (Tamil Nadu), at an altitude of 1500m (4900ft) by a four year old boy.

Look-alikes

Russell's Kukri Snake.
Striped Coral Snake (brown form).

ADULT - Tiger Shola, Palni Hills, Tamil Nadu, India

RW

Nikhil's Kukri Snake *Oligodon nikhili*

NON VENOMOUS, RARE Maximum >423mm (17in)

Painted Bronzeback Tree Snake — *Dendrelaphis pictus*

NON VENOMOUS, COMMON

At hatching 200-300mm (8-12in)
Adults 900-1200mm (35-47in)
Maximum 1430mm (56in)

Description

Long, slender, smooth-scaled. Head elongate, distinctly broader than neck; snout bluntly rounded. Large eye has round pupil. Tail very long, thin, wire-like. Belly scales and those under tail have outer edges sharply folded upward (keeled). Two subspecies are currently recognized; however, it is likely that several species have been clumped together in this complex. (i) Painted Bronzeback Tree Snake (*Dendrelaphis pictus pictus*): Bronze-brown back; side of body has broad cream or yellow stripe; black line present above, below or both above and below cream stripe. Bold black streak on side of head (from snout tip, or behind eye) continues onto neck, where it breaks up into oblique lines. Lip scales yellow or white. Underside yellowish-white, pale greenish or bluish. Another color form of this subspecies (referred to in literature; not seen by us) has no cream or yellow stripe (or it is indistinct) and the continuous black stripe is replaced by black spots on scale edges. (ii) Andaman Painted Bronzeback Tree Snake (*Dendrelaphis pictus andamanensis*): Olive-bronze, greenish or reddish back; scales on mid-line of back and outer edges of belly scales black-edged; black stripe along side of head continues onto neck. Underside greenish-yellow. The common name is misleading as this subspecies is found on the Nicobar Islands; the single record from the Andaman Islands needs to be reconfirmed. The taxonomic status of this subspecies remains unresolved. Some authorities feel it may be a race of *Dendrelaphis formosa* rather than of *Dendrelaphis pictus*, while others suspect that it may be an altogether new species. The Painted Bronzeback has a bright red tongue (the similar looking Common Bronzeback *Dendrelaphis tristis* has a dark blue one. This is a useful field character to tell the two apart. However, identification must be confirmed by examining maxillary teeth).

Scalation/ Dentition

Scales in 15 : 15 : 11 or 9 oblique rows, smooth. Vertebral scales distinctly enlarged. Ventrals 167-200, with sharp, notched lateral keel; subcaudals 109-169, paired; anal divided or entire. Supralabials 9, rarely 8 (4th just touching; 5th and 6th touching eye); 1 pre-, 2 postoculars; temporals 1+2 or 2+2 (rarely 1+1). Maxillary teeth 23-28, posterior largest. (This can only be checked by carefully dissecting a dead specimen.)

Natural History/ Behavior

Diurnal. Arboreal; inhabits low bushes and trees. Feeds mostly on frogs and lizards. Occasionally eats small snakes and baby birds. Extremely fast. Notched, sharply defined edges of belly scales help it climb. Can leap from branch to branch. Females lay 2-10 long, thin eggs that hatch in about 75 days. Breeds year round in some parts of range. If alarmed, expands neck and forebody to show blue spots at lower edge of each scale.

ADULT - Thailand

WOLFGANG WÜSTER

Painted Bronzeback Tree Snake

Dendrelaphis pictus pictus

NON VENOMOUS, COMMON

At hatching 200-300mm (8-12in); adults 900-1200mm (35-47in); maximum 1430mm (56in)

Painted Bronzeback Tree Snake

Dendrelaphis pictus

NON VENOMOUS, COMMON

At hatching 200-300mm (8-12in)
Adults 900-1200mm (35-47in)
Maximum 1430mm (56in)

Distribution

Painted Bronzeback Tree Snake *Dendrelaphis pictus pictus*: Form 1. India: from West Bengal to Arunachal Pradesh; records from Orissa need confirmation. Also Bangladesh, Myanmar, southern China, Laos, Thailand, Cambodia, Vietnam, Malaysia, the Philippines, and Indonesia. Records from Nepal need confirmation. Found up to 1300m (4265ft). Form 2. Southern India.

Andaman Painted Bronzeback Tree Snake *Dendrelaphis pictus andamanensis*: *Endemic to India.* Nicobar Islands. Reports from the Andamans need confirmation.

Look-alikes

Painted Bronzeback Tree Snake:
Other Bronzeback Tree Snakes.
Sand Snakes.

Andaman Painted Bronzeback Tree Snake:
None.

ADULT - Kopen Heat, Great Nicobar Island, India

INDRANEIL DAS

Andaman Painted Bronzeback Tree Snake

Dendrelaphis pictus andamanensis

NON VENOMOUS, COMMON

At hatching 200-300mm (8-12in); adults 900-1200mm (35-47in); maximum 1430mm (56in)

Green Bronzeback Tree Snake *Dendrelaphis cyanochloris*

NON VENOMOUS, COMMON IN PARTS OF RANGE Maximum 1330mm (52in)

Description

Long, slender, slightly flattened body. Smooth-scaled. Head elongate, distinctly broader than neck. Large eye has round pupil. Snout bluntly rounded (broader and squarer than that of Painted Bronzeback Tree Snake). Tail very long, thin and wire-like. Belly scales and those under tail have sharp upward fold (keel). Olive green-yellow-bronze back has black-edged scales that form a fish-net pattern. Distinct black line from tip of snout (or eye) along side of head separates olive-green top of head from greenish-yellow lip scales. Lower body and belly scales yellow. One or two black lines may separate upper body color from that of underside; side of tail unlined. Tongue red tipped with black. Sometimes called Blue Bronzeback for the blue interscale color.

Scalation/ Dentition

Scales in 15 : 15 : 11 or 9 oblique rows, smooth. Vertebral scales distinctly enlarged. Ventrals 186-211; anal divided; subcaudals 135-159, paired. Supralabials 9, rarely 8 or 10 (4 just touching; 5, 6 below eye); temporals 1+2 or 2+2. Maxillary teeth 21-24, posterior largest. (This can only be checked by carefully dissecting a dead specimen.)

Natural History/ Behavior

Diurnal. Arboreal; inhabits low bushes and trees. Feeds on frogs, garden lizards, geckos, and small birds, even entering thatched houses to do so. Sharply defined edges of belly and tail scales are notched, and help it climb. Can leap from branch to branch. Lays 3-5 elongate eggs. If cornered, expands forebody to show light blue interscale skin, rears up, and may strike repeatedly.

Distribution

India: the Northeast from West Bengal (Darjeeling district) to Arunachal Pradesh; and the Andaman Islands. Also Myanmar, Thailand.

Look-alikes

None.

ADULT - South Andaman Island, India

RW

Green Bronzeback Tree Snake

Dendrelaphis cyanochloris

NON VENOMOUS, COMMON IN PARTS OF RANGE

Maximum 1330mm (52in)

Green Bronzeback Tree Snake

Dendrelaphis cyanochloris

NON VENOMOUS, COMMON IN PARTS OF RANGE

Maximum 1330mm (52in)

SAMEER GHODKE

ADULT - North Wandoor, South Andaman Island, India

ADULT - South Andaman Island, India

RW

Green Bronzeback Tree Snake

Dendrelaphis cyanochloris

NON VENOMOUS, COMMON IN PARTS OF RANGE

Maximum 1330mm (52in)

Large-eyed Bronzeback Tree Snake *Dendrelaphis grandoculis*

NON VENOMOUS, UNCOMMON Maximum 1280mm (50in)

Description

Long, slender, slightly flattened body. Smooth-scaled. Head distinctly broader than neck; snout bluntly rounded. Very large eye has round pupil. No black line behind eye. Tail very long, thin, wire-like. Belly scales (ventrals) and those under tail (subcaudals) have sharp upward fold (keel). Olive-brown back, sometimes with small, black, irregularly placed blotches. No dark stripe on side of body. Underside pale brown in front, darker behind, sometimes with small black spots on sides. Tail has 3 black lines – one on each side and one below. This is the only Indian bronzeback with no black line behind the eye and without a dark stripe on the sides of its body.

Scalation/ Dentition

Scales in 15 : 15 : 11 or 9 oblique rows, smooth. Vertebral scales slightly enlarged. Ventrals 167-189; anal divided; subcaudals 117-124, paired;. Supralabials 9 (4th just touching; 5th and 6th below eye); temporals 1+2 or 2+2. Maxillary teeth 31-33, posterior largest. (This can only be checked by carefully dissecting a dead specimen).

Natural History/ Behavior

Diurnal. Arboreal; inhabits low bushes and trees. Feeds on frogs, garden lizards, and geckos. Occasionally eats small snakes and baby birds. Notched, sharply defined edges of belly scales help it climb. Compared to other bronzebacks, this is a slower moving, calm snake, unlikely to bite when handled.

Distribution

Endemic to India. Wet forests in lower hills of the southern Western Ghats – Tamil Nadu (Nilgiri and Ashambu Hills, Kalakad-Mundanthurai) and Kerala (Silent Valley, Wynad).

Look-alikes

Common Bronzeback Tree Snake.
Juvenile Indian Rat Snake.

ADULTS - Main picture: Silent Valley, Kerala, India • Inset: Kannikatti, Kalakad-Mundanthurai, Tamil Nadu, India

Main picture: RW • Inset: S.U. SARAVANAKUMAR

Large-eyed Bronzeback Tree Snake *Dendrelaphis grandoculis*

NON VENOMOUS, UNCOMMON Maximum 1280mm (50in)

Common Bronzeback Tree Snake — *Dendrelaphis tristis*

NON VENOMOUS, COMMON

At hatching 150mm (6in)
Adults 1000mm (39in)
Maximum 1690mm (67in)

Description

Long, slender, smooth-scaled. Head distinctly broader than neck; snout bluntly rounded. Large eye has round pupil. Tail very long, thin and wire-like. Belly scales and those under tail have outer edges sharply folded upward (keel). Bronze-brown or purplish-brown back with a dark brown or black stripe on either side of body. Indistinct black streak behind eye. Underside usually white, gray or pale green. Young similar to adults but have a faint banded pattern that is lost in the first year. This species has a dark blue tongue. (A very similar looking species, the Painted Bronzeback *Dendrelaphis pictus*, has a bright red tongue). This is a useful field identification character. However, identification must be confirmed by examining the maxillary (upper jaw) teeth.

Scalation/ Dentition

Scales in 15 : 15 : 11 or 9 oblique rows, smooth. Vertebral scales very slightly enlarged on neck. Ventrals 163-197, with sharp, notched lateral keel; anal divided; subcaudals 108-145, paired. Supralabials 9 (5th and 6th touching eye); 1 pre-, 2 postoculars; temporals 2+2. Maxillary teeth 17-22, posterior usually smallest.

Natural History/ Behavior

Diurnal. Arboreal; inhabits low bushes, thorn trees, Indian date palms, and palmyra. Feeds on frogs, garden lizards, geckos, and small birds, even entering thatched houses to feed. One captive ate 104 frogs in a year. Extremely fast. Notched, sharply defined edges of belly scales help it climb. Can leap from branch to branch. Females lay 6-8 long, thin eggs (around April) in tree holes and rotting vegetation. Nervous disposition. If cornered, some will strike repeatedly while expanding forebody to show light blue/ white color at lower edge of each scale.

Distribution

India: throughout most of peninsular India Gujarat downwards; northeastern India to Darjeeling. May not occur in Central India. Also Pakistan, Nepal, Bangladesh, Sri Lanka. Found from sea level up to 2000m (6560ft) in the Himalayas.

Look-alikes

Other bronzeback tree snakes.
Sand snakes.

ADULT - Pune district, Maharashtra, India

Common Bronzeback Tree Snake

Dendrelaphis tristis

NON VENOMOUS, COMMON

At hatching 150mm (6in); adults 1000mm (39in); maximum 1690mm (67in)

Common Bronzeback Tree Snake

Dendrelaphis tristis

NON VENOMOUS, COMMON

At hatching 150mm (6in); adults 1000mm (39in); maximum 1690mm (67in)

ADULT - Pune district, Maharashtra, India

AC

ADULT - Pune district, Maharashtra, India

Common Bronzeback Tree Snake

Dendrelaphis tristis

NON VENOMOUS, COMMON

At hatching 150mm (6in); adults 1000mm (39in); maximum 1690mm (67in)

Ornate Flying Snake

Chrysopelea ornata

MILDLY VENOMOUS, UNCOMMON

At hatching 114-200mm (5-8in)
Adults 1000mm (39in)
Maximum 1750mm (69in)

Description

Long, slender, smooth-scaled. Head elongate; snout squarish; large eye has round pupil. Tail very long. Yellow, greenish-yellow or pale green back with black cross-bars. A series of large orange or red vertebral spots or rectangles lie between alternate pairs of black cross-bars. Black head has yellow cross-bars and spots. Underside pale greenish-yellow. Young black above, with narrow, pale greenish-yellow cross-bars.

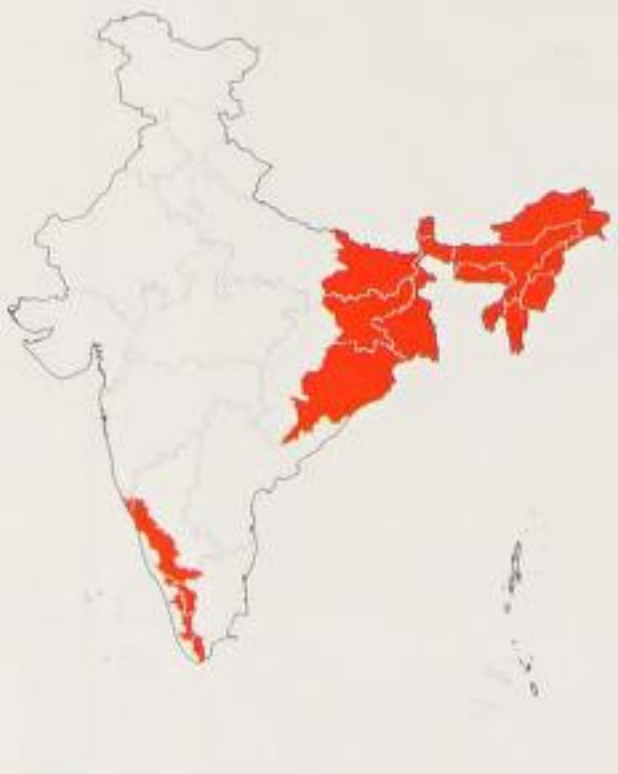
Scalation

Scales in 17 : 17 : 15 rows, smooth or weakly keeled. Ventrals 207-230, with sharp, notched lateral keel; subcaudals 120-138, paired (India, Sri Lanka). Ventrals 213-234, with sharp, notched lateral keel; subcaudals 110-138, paired (S. E. Asia). Anal and last ventral divided. Frontal bell-shaped; preocular 1; postoculars 2; temporals 2+2; usually 9 supralabials (4th to 6th touching eye).

Natural History/ Behavior

Diurnal. Though arboreal, sometimes seen on low bushes or in grass. Does not fly; glides by extending ribs and pulling in underside (to slow its descent like a parachute). Virtually swims through the air and can glide a distance of 100m (330ft). Climbs remarkably well, aided by notched angular belly scales. Feeds on frogs, geckos, lizards, small birds and even bats! Grooved, enlarged rear teeth help the slightly toxic saliva enter its prey. Lays 6-12 elongate eggs in June-July.

Distribution

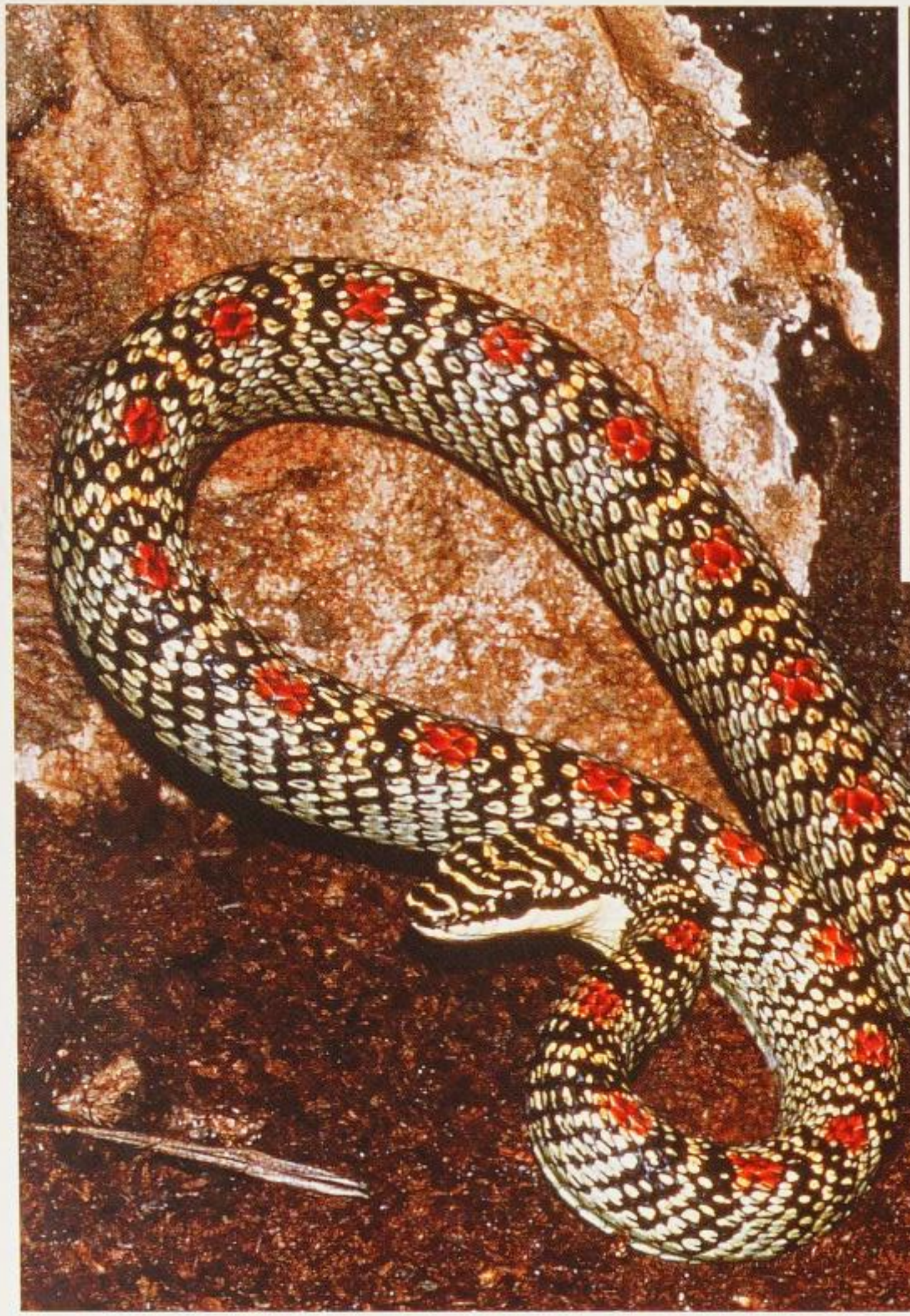


India: forested hills of the Southwest (south of the Goa Gap); Bihar; Orissa; West Bengal; forests of Northeast India; possibly Maharashtra and Gujarat. Also Sri Lanka, Nepal, China, Myanmar and Bangladesh.

Look-alikes

None in India.

ADULTS - Main picture: Nepal • Inset: India



Main picture: FRANK TILLACK • Inset: AC

Ornate Flying Snake

Chrysopelea ornata

MILDLY VENOMOUS, UNCOMMON

At hatching 114-200mm (5-8in); adult length 1000mm (39in); maximum 1750mm (69in)

Paradise Flying Snake

Chrysopelea paradisi

MILDLY VENOMOUS, RARE

Maximum 1300mm (51in)

Description

Long, slender, smooth-scaled. Head elongate; snout squarish; large eye has round pupil. Tail very long. Black above; most scales with a greenish-yellow spot or streak, giving the snake a bright appearance. Some snakes also have a series of red or yellow spots that resemble three- or four-petalled flowers along the midback; spots on neck lighter colored. Head black, with narrow, greenish-yellow cross-bands; last two chevron-shaped. Tail black, with light green spots. Underside pale greenish-yellow; with black-edged scales.

Scalation

Midbody scales in 17 rows, smooth or weakly keeled. Ventrals 198-238 with a sharp, notched lateral keel; subcaudals 106-149, paired. Anal and last ventral divided. Frontal bell-shaped. Supralabials 9 or 10 (4^{th} to 6^{th} or 5^{th} and 6^{th} touching eye). Scalation data of specimen examined at the B.N.H.S. included, as there is little scalation data on *C. paradisi* from India. S. 2875 from Narcondam Island has: ventrals 216, last paired; anal divided; subcaudals 124. Supralabials 9 (4^{th} to 6^{th} touching eye); preocular 1; postoculars 2; temporals 2+2.

Natural History/ Behavior

Poorly known. Diurnal and arboreal. Glides by extending ribs and pulling in underside. Climbs swiftly aided by notched angular belly scales. Probably feeds on frogs, geckos, lizards, small birds, and bats, like other members of this genus. Grooved, enlarged rear teeth help slightly toxic saliva enter the prey. Lays 5-8 eggs.

Distribution

India: limited to Narcondam Island (Andaman Islands). Also Thailand, Malaysia, Singapore, Indonesia and the Philippines.

Look-alikes

None in range.

WOLFGANG GROSSMAN

Paradise Flying Snake

Chrysopelea paradisi

MILDLY VENOMOUS, RARE

Maximum 1300mm (51in)

Travancore Wolf Snake

Lycodon travancoricus

NON VENOMOUS, COMMON

Maximum 742mm (29in)

Description

Slender-bodied; smooth-scaled. Flattened head slightly broader than neck, snout broad. Eye entirely black. Glossy dark purplish-brown or black above with dull yellow cross-lines or bands speckled with black. Snakes from the Nilgiris and Wynad have bright yellow cross-bands. On sides of body, bands usually branch into two and enclose triangular spots. First band on nape. Upper lip scales usually brown, may be spotted with white. Underside uniform white. As these snakes are almost always encountered at night, it is worth noting that the bands appear white under a flashlight. They are also white in preserved specimens. (The Common Wolf Snake, the Barred Wolf Snake and the Yellow-spotted Wolf Snake, all have a similar pattern).

Scalation

Scales in 17 : 17 : 15 rows, smooth. Ventrals 176-206, angulate laterally; anal undivided; subcaudals 64-76, paired or some (rarely all) entire. Loreal 1, not touching internasal (sometimes touches ocular); preocular 1; postoculars 2; temporals 2+3 or 3+3; supralabials 9 (3rd to 5th touching eye).

Natural History/ Behavior

Nocturnal. Usually found in the hills (in fact, an earlier common name was the Hill Wolf Snake); known to enter houses. A tea estate bungalow at 1400m (4590ft) in the hills near Tirunelveli was observed to be "crawling" with Travancore Wolf Snakes. We have also found this species at nearly sea level in Maharashtra (Phansad and Dorle). Eats skinks, geckos and frogs. Lays 2-6 eggs in April-May. A gentle snake, usually does not bite when handled.

Distribution

Endemic to India. The Western Ghats, as far north as Maharashtra (Matheran). Also recorded from Tamil Nadu (South Arcot), Kerala, Orissa, Andhra Pradesh (Vishakapatnam) and Madhya Pradesh (Jabalpur). Reports of this species from Jammu & Kashmir as well as Pakistan need confirmation.

Look-alikes

Other wolf snakes.
Bridal Snake.
Common Krait.

ADULTS - Main picture: Amboli, Sindhudurg district, Maharashtra, India • Inset: Valparai, Tamil Nadu, India

Main picture: AC • Inset: S.U. SARAVANAKUMAR

Travancore Wolf Snake

Lycodon travancoricus

NON VENOMOUS, COMMON

Maximum 742mm (29in)

Laotian Wolf Snake

Lycodon laoensis

NON VENOMOUS, RARE

Maximum 475mm (19in)

Description

Slender-bodied; smooth-scaled. Flattened head slightly broader than neck; snout broad. Eye entirely black. Glossy bluish-black back has broad, widely-spaced, bright yellow or ochre cross-bands on forebody (wider and white on sides); bands on hind body narrower, closer together, and enclose black, triangular patches on sides. Top of head and usually front upper lip scales bluish-black; other lip scales and underside white or cream. Back of head has well-defined band constricted in the middle (absent in Zaw's Wolf Snake, a recently described look-alike).

Scalation

Scales in 17 : 17 : 15 rows, smooth. Ventrals 163-187, angulate laterally; anal divided; subcaudals 60-76, paired. Loreal 1, does not or barely touches internasal; preocular 1, separates prefrontal from eye; postoculars 2; temporals 2+3; supralabials 9 or 10 (3rd to 5th touching eye).

Natural History/ Behavior

Nocturnal. Has been found hiding under bark of trees as high as 9m (30ft). Like other wolf snakes, climbs well. Usually feeds on skinks, lizards, frogs and small mice, sometimes eats crickets and earthworms. Lays up to 5 eggs in April-May.

Distribution

India: Arunachal Pradesh (Changlang district). Also most of Southeast Asia (China, Laos, Thailand, Vietnam, Cambodia, Malaysia). Not yet reported from Myanmar, but very likely to be found there as it has been reported from adjacent areas of Arunachal Pradesh.

Look-alikes

Other wolf snakes.
Kraits.

ADULTS - Main picture: Thailand • Inset: location unknown

Main picture: WOLFGANG WÜSTER • Inset: JENNIFER DALTRY

Laotian Wolf Snake

Lycodon laoensis

NON VENOMOUS, RARE

Maximum 475mm (19in)

Yellow-speckled Wolf Snake

Lycodon jara

NON VENOMOUS, UNCOMMON

Maximum 550mm (22in)

Description

Slender-bodied; smooth-scaled. Flattened head slightly broader than neck. Snout does not project beyond lower jaw. Eye entirely black. Glossy brown or purplish-black above, speckled with yellow (most upper body scales have two small yellow or white spots/ short lines). Lip and belly scales white. Young have white or yellow collar behind head.

Scalation

Scales in 17 : 17 : 15 rows, smooth. Ventrals 167-188, not angulate laterally; anal divided; subcaudals 52-74, paired. Loreal 1, touches internasal; preocular 1; postoculars 2; temporals 1+2 or 2+3; supralabials 8 or 9 (3rd to 5th touching eye).

Natural History/ Behavior

Little is known about this attractive snake. Nocturnal. Eats geckos. Lays eggs.

Distribution

India: Orissa (Ganjam), West Bengal to Arunachal Pradesh; western-most records from Dehra Dun. Also Nepal and Bangladesh.

Look-alikes

Other wolf snakes.
Kraits.

ADULT - Bardia National Park, Nepal

MARK O'SHEA

Yellow-speckled Wolf Snake

Lycodon jara

NON VENOMOUS, UNCOMMON

Maximum 550mm (22in)

Barred Wolf Snake

Lycodon striatus

NON VENOMOUS, COMMON

Maximum 488mm (19in)

Description

Slender-bodied; smooth-scaled. Flattened head slightly broader than neck, snout broad, projects beyond lower jaw. Eye entirely black. Glossy blackish-brown back has white, ochre or yellow cross-bands that widen on sides to enclose triangular spots. Bands may be less distinct towards tail. White collar (sometimes faint) usually present. Lip scales and undersides white. Specimens from Maharashtra have white bands with yellow (usually diamond-shaped) mid-spots and are often mistaken for the Yellow-spotted Wolf Snake.

Scalation

Scales in 17 : 17 : 15 rows, smooth. Ventrals (south of lat. 20°) 154-166, (north of lat. 20°) 163-195; anal divided; subcaudals paired (south of lat. 20°) 35-50, (north of lat. 20°) 44-58. Loreal 1, touches internasal; preocular 1; postoculars 2; temporals 2+3, rarely 1+2; supralabials 8 (3rd to 5th touching eye).

Natural History/ Behavior

Nocturnal. Usually terrestrial. Eats geckos and skinks. Lays 2-4 eggs in August. Both male and female have been found together with eggs. Unlike the Common Wolf Snake, not temperamental and usually does not bite when handled.

Distribution

India: Most of Peninsular India. From Jammu & Kashmir (Jammu), Himachal Pradesh (Shimla) and Punjab in the north to Gujarat in the west; Uttar Pradesh (Agra) east to Jharkhand (Chota Nagpur) and Orissa; from Maharashtra through Karnataka, south to Tamil Nadu. Also Pakistan, Nepal, and Sri Lanka. Found from sea level up to about 1830m (6000ft).

Look-alikes

Yellow-spotted Wolf Snake.
Travancore Wolf Snake.
Common Krait.

ADULTS - Main picture: Yercaud, Tamil Nadu, India • Inset: Pune district, Maharashtra, India

Main picture: INDRANEIL DAS • Inset: AC

Barred Wolf Snake

Lycodon striatus

NON VENOMOUS, COMMON

Maximum 488mm (19in)

Yellow-spotted Wolf Snake — *Lycodon flavomaculatus*

NON VENOMOUS, RARE — Maximum 520mm (20in)

Description

Slender-bodied; smooth-scaled. Flattened head slightly broader than neck, snout broad, projects beyond lower jaw. Eye entirely black. Glossy black above (iridescent bluish-black in sunlight) with a series of small, bright yellow spots along the midback. Arising from the spots are yellow or white cross-bands that widen and become indistinct on sides. Lip scales and underside white. (In Maharashtra, yellow-spotted forms of the Barred Wolf Snake *Lycodon striatus* are frequently mistaken for this species).

Scalation

Scales in 17 : 17 : 15 rows, smooth. Ventrals 165-183; anal divided; subcaudals 53-63, paired; loreal 1, touches internasal; preocular 1; postoculars 2; temporals 2+3; supralabials 9 (3rd to 5th touching eye).

Natural History/ Behavior

Poorly known. Nocturnal. Ate geckos in captivity. Lays eggs. Unlike the Common Wolf Snake, not temperamental and almost never bites when handled.

Distribution

Endemic to India. Only recorded from a few places in and around the Western Ghats of Maharashtra (Nasik, Pune, Mulshi, Talegaon, Deolali, Dharwad, Sangli, Buldhana and "Oudi"). A record from Gujarat needs confirmation.

Look-alikes

Barred Wolf Snake.
Travancore Wolf Snake.

Yellow-spotted Wolf Snake

Lycodon flavomaculatus

NON VENOMOUS, RARE

Maximum 520mm (20in)

Common Wolf Snake

Lycodon aulicus

NON VENOMOUS, COMMON

At hatching 140mm (6in)
Adults 300mm (12in)
Maximum 800 mm (32in)

Description

Slender-bodied; smooth-scaled. Flattened head slightly broader than neck; snout broad, projects beyond lower jaw. Eye entirely black. Glossy gray, brown or black above, usually with 10-20 narrow white or yellow bands that fork on sides of body. Neck usually has whitish or yellowish collar. Bands most distinct on forebody and either faint or entirely absent on hind body. Upper lip white or spotted with brown. Underside white. Some individuals are entirely unbanded. Often mistaken for the Common Krait (which has enlarged hexagonal vertebral scales), other species of wolf snakes or the rare Bridal Snake.

Scalation

Scales in 17 : 17 : 15 rows, smooth. Ventrals 172-214, strongly angulate laterally; anal divided; subcaudals 57-80, paired. Loreal 1, in good contact with the internasal, not touching eye; preocular 1; postoculars 2; temporals usually 2+2; supralabials 9 (3rd to 5th touching eye).

Natural History/ Behavior

Strictly nocturnal. Found in and around caves, wells, stone piles, hollow trees and often in houses. Climbs rough vertical walls with ease. Adults eat geckos and skinks. Lays 5-7 eggs in December-January in the Chennai region; March-July in North India. Nervous, usually bites if handled.

Distribution

Throughout India (including Lakshadweep but not the Andaman & Nicobar Islands). Also Pakistan, Nepal, Sri Lanka, Bangladesh and Myanmar. Old records from the Maldives need to be reconfirmed, as they may be wrongly identified Oriental Wolf Snakes (*Lycodon capucinus*).

Look-alikes

Other wolf snakes.
Common Krait.
Bridal Snake.

ADULT - Pune district, Maharashtra, India

Common Wolf Snake

Lycodon aulicus

NON VENOMOUS, COMMON

At hatching 140mm (6in); adults 300mm (12in); maximum 800 mm (32in)

Oriental Wolf Snake

Lycodon capucinus

NON VENOMOUS, COMMON

Maximum 780mm (31in)

Description

Slender-bodied; smooth-scaled. Flattened head slightly broader than neck; snout broad, projects beyond lower jaw. Eye entirely black. Adults from Andamans: Almost entirely glossy coffee- or purplish-brown above; neck sometimes has very faint band. Several scales on back with pale brown margins. Lip scales white, sometimes with brown centers. Belly pearl-white. Juveniles from Andamans: Pale "milk tea" brown with bold, dark caramel- or blackish-brown blotches on the back; top of head dark brown; neck has indistinct band, usually notched in the middle. Pale color of juveniles gradually darkens (with age). Individuals from Southeast Asia have a different pattern.

Scalation

Scales in 17 : 17 (rarely 19) : 15 rows, smooth. Ventrals 187-210, angulate laterally; anal divided; subcaudals 61-78, paired. Loreal 1, in good contact with the internasal, not touching eye; preocular 1; postoculars 2; temporals usually 2+2; supralabials usually 9 (3rd to 5th touching eye).

Natural History/ Behavior

Nocturnal. Usually found on the ground close to forest streams; sometimes found in huts. Eats geckos, skinks and frogs. Lays 3-11 eggs that hatch in 45-55 days. Female stays near eggs.

Distribution

India: the Andaman and Central Nicobar Islands. Also probably the Maldives (needs confirmation) and much of Southeast Asia (Myanmar, Thailand, Malaysia, Hong Kong, Philippines, Celebes).

Look-alikes

None.

Main picture: ADULT - South Andaman Island, India • Inset: JUVENILE - Near Mayabunder, Middle Andaman Island, India

Main picture: RW • Inset: SAMEER GHODKE

Oriental Wolf Snake

Lycodon capucinus

NON VENOMOUS, COMMON

Maximum 780mm (31in)

Zaw's Wolf Snake

Lycodon zawi

NON VENOMOUS, RARE

Maximum 480mm (19in)

Description

Smooth-scaled. Flattened head slightly broader than neck. Snout projects beyond lower jaw. Eye entirely black. Glossy brownish-black above with thin, distinct, narrow white cross-bands that fade towards hind body. Back of head without well-defined band; when present, band very faint. Lip scales pale brown. Belly scales cream with darker outer edges. Tail sometimes banded. (Look-alikes – the Banded Wolf Snake, Laotian Wolf Snake and the Common Wolf Snake almost always have a distinct, well defined collar).

Scalation

Scales smooth in 17 : 17 : 15 rows. Ventrals 179-207, angulate laterally; anal divided; subcaudals 45-75, paired. Loreal 1, does not touch internasal; preocular 1; postoculars 1 or 2; temporals usually 2+3 (variations: 1+2, 2+1, 2+2 or 3+4); supralabials 8 or 9 (3rd to 5th touching eye).

Natural History/ Behavior

Nocturnal. Often found near streams. Eats skinks. A captive specimen ate geckos.

Distribution

India: known from a few localities south of the Brahmaputra in Assam, Meghalaya and Mizoram. Also Myanmar.

Look-alikes

Other wolf snakes.
Kraits.

ADULT - Mizoram, India

SAMRAAT PAWAR

Zaw's Wolf Snake

Lycodon zawi

NON VENOMOUS, RARE

Maximum 480mm (19in)

Collared Black-headed Snake

Sibynophis collaris

NON VENOMOUS, COMMON IN PARTS OF RANGE

Maximum 850mm (34in)

Description

Slender-bodied, smooth-scaled. Head slightly broader than neck; eye has round pupil. Tail long, gradually tapered. Body and tail brown above, usually with a series of small black dots along midback. Head grayish-brown with tiny brown or black spots and two black cross-bands. Nape has broad black cross-band, bordered behind by a dull yellowish-white line. Upper lip scales white or yellow, spotted and bordered on top with brown or black. Tongue brown. Underside white or yellow. Each forebody belly scale has four black dots; each hindbody belly scale has two.

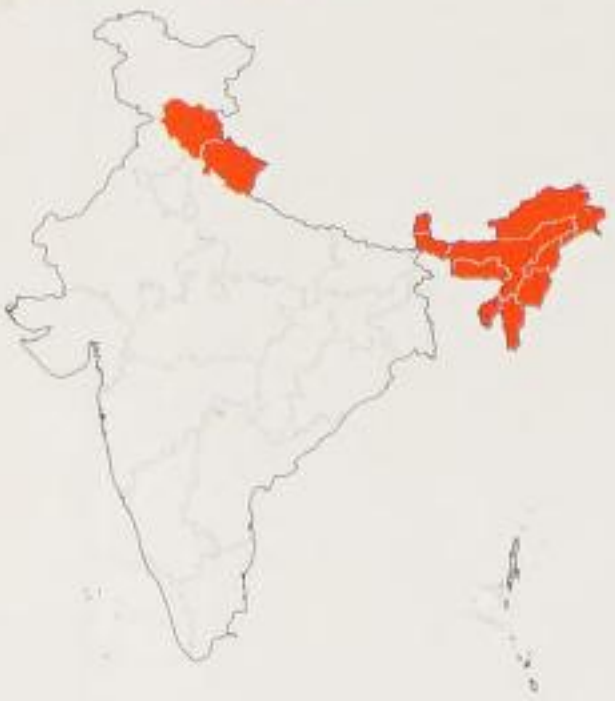
Scalation

Scales in 17 : 17 : 17 rows, smooth. Ventrals 155-188; anal scale divided; subcaudals 92-125, paired. Supralabials 10 (4^{th} to 6^{th} touching eye), rarely 9 or 11; preocular 1; postoculars 2; anterior temporal 1 (touching 8^{th} supralabial); parietal touches upper postocular only, or barely touches lower.

Natural History/ Behavior

Probably active by day and night, like other black-headed snakes. A montane species found in hill forests, often in dense undergrowth. Eats skinks, lizards, and frogs; one had swallowed a snake. Lays up to 6 eggs in June; one seen by us in Arunachal Pradesh (late May) prematurely deposited a large, oval, white egg (30×10×10mm). Inoffensive. If handled, may coil hindbody and tail around fingers; possibly constricts prey in a similar fashion. Anal gland secretion smells of cheap tobacco.

Distribution



India: Himalayas from Shimla to the Northeast (Mishmi Hills, Patkai Hills). Fairly common in parts of its range. A single record from Kolkata was probably washed down by floods. Also Nepal, China, Myanmar, Thailand, and Malaysia. Found up to 3050m (10,000ft).

Look-alikes

Other black-headed snakes.

ADULT - Near Gandhigram village, Changlang district, Arunachal Pradesh, India

Collared Black-headed Snake

Sibynophis collaris

NON VENOMOUS, COMMON IN PARTS OF RANGE

Maximum 850mm (34in)

Collared Black-headed Snake

Sibynophis collaris

NON VENOMOUS, COMMON IN PARTS OF RANGE

Maximum 850mm (34in)

Description

Slender-bodied, smooth-scaled. Head slightly broader than neck; eye has round pupil. Tail long, gradually tapered. Body and tail brown above, usually with a series of small black dots along midback. Head grayish-brown with tiny brown or black spots and two black cross-bands. Nape has broad black cross-band, bordered behind by a dull yellowish-white line. Upper lip scales white or yellow, spotted and bordered on top with brown or black. Tongue brown. Underside white or yellow. Each forebody belly scale has four black dots; each hindbody belly scale has two.

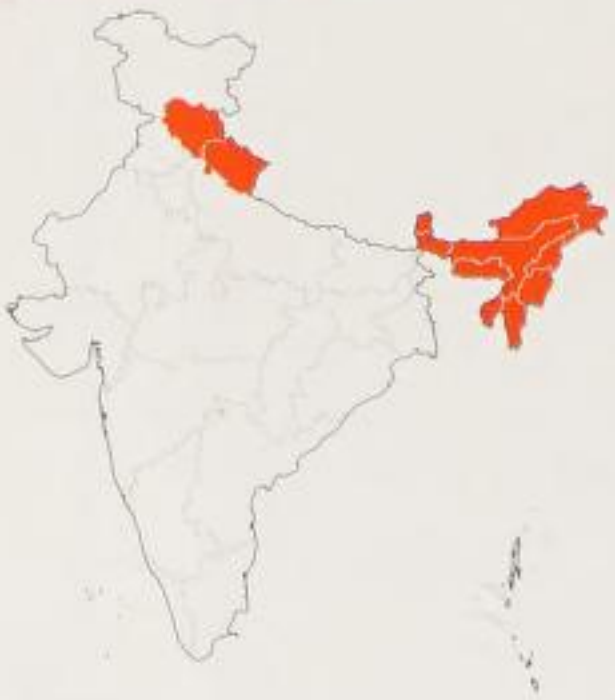
Scalation

Scales in 17 : 17 : 17 rows, smooth. Ventrals 155-188; anal scale divided; subcaudals 92-125, paired. Supralabials 10 (4^{th} to 6^{th} touching eye), rarely 9 or 11; preocular 1; postoculars 2; anterior temporal 1 (touching 8^{th} supralabial); parietal touches upper postocular only, or barely touches lower.

Natural History/ Behavior

Probably active by day and night, like other black-headed snakes. A montane species found in hill forests, often in dense undergrowth. Eats skinks, lizards, and frogs; one had swallowed a snake. Lays up to 6 eggs in June; one seen by us in Arunachal Pradesh (late May) prematurely deposited a large, oval, white egg (30×10×10mm). Inoffensive. If handled, may coil hindbody and tail around fingers; possibly constricts prey in a similar fashion. Anal gland secretion smells of cheap tobacco.

Distribution



India: Himalayas from Shimla to the Northeast (Mishmi Hills, Patkai Hills). Fairly common in parts of its range. A single record from Kolkata was probably washed down by floods. Also Nepal, China, Myanmar, Thailand, and Malaysia. Found up to 3050m (10,000ft).

Look-alikes

Other black-headed snakes.

ADULT - Near Gandhigram village, Changlang district, Arunachal Pradesh, India

Collared Black-headed Snake

Sibynophis collaris

NON VENOMOUS, COMMON IN PARTS OF RANGE

Maximum 850mm (34in)

Duméril's Black-headed Snake *Sibynophis subpunctatus*

NON VENOMOUS, UNCOMMON

Adults 250mm (10in)
Maximum 460mm (18in)

Description

Slender-bodied, smooth-scaled. Head slightly broader than neck; eye has round pupil. Tail long, gradually tapering, without black rings. Body and tail brown above, with a series of tiny black dots that run along the midback. Sides of body often gray, separated from brown back, by a dark line or dark spots. Specimens from Maharashtra have reddish-brown forebody; paler brown hind body and tail. Head black with white or pale yellow markings. Neck has white collar. Underside greenish-yellow; belly scales with a black dot on each side. Often confused with the venomous Slender Coral Snake (which has a coral red belly and two distinct black rings on its very short tail).

Scalation/ Dentition

Scales in 17 : 17 : 17 rows, smooth. Ventrals: 151-200 (India south of latitude 14°; Sri Lanka), 172-215 (India north of lat. 18°, Matheran, Nasik district, Central India, Bengal); anal scale divided; subcaudals: males 60-76, females 54-63, paired. Supralabials 9 (4^{th} to 6^{th} touching eye), rarely 8 (3^{rd} to 5^{th} touching eye); preocular 1; postoculars 2; anterior temporals 2; parietal touches both postoculars. Maxillary teeth 42-48.

Natural History/ Behavior

Active by day and night. Terrestrial. Lives in leaf litter; has been found under stones and logs. Preys on geckos, skinks and smaller snakes. Lays 2-5 eggs.

Distribution

Peninsular India: (extent not precisely known) south of Rajasthan and south of the Ganges Valley. Also Sri Lanka, Bangladesh and Nepal.

Look-alikes

Slender Coral Snake.
Other black-headed snakes.

ADULT - Pune, Maharashtra, India

AC

Duméril's Black-headed Snake

Sibynophis subpunctatus

NON VENOMOUS, UNCOMMON

Adults 250mm (10in); maximum 460mm (18in)

Venning's Keelback

Amphiesma venningi

NON VENOMOUS, RARE

Maximum 780mm (31in)

Description

Slender-bodied with weakly keeled scales. Head broader than neck; eye has round pupil. Tail long. Olive brown back with (sometimes indistinct) black checks or spots. Sides of forebody with brownish-yellow (ochre) spots. Top of head with pale brown, worm-like markings. Upper lip scales pale brownish-yellow, their posterior margins edged with black. Back of head with thin, backward-pointing U shaped mark – broken in the middle. Lower lip scales and first few belly scales white; others coral red or orange with pale brown outer edges, smudged with black. Tongue black. Underside of tail blackish-brown.

Scalation

Scales in 17 rows throughout, keeled. Ventrals 155-176; anal divided; subcaudals 81-140, paired. Internasals truncate, but distinctly narrowed anteriorly. Supralabials 9 (4th to 6th touching eye); temporals 1+1 or 1+2; preoculars 1 or 2; postoculars 2 or 3.

Natural History/ Behavior

Specimens from Arunachal Pradesh were found near hill streams, close to disturbed evergreen montane forest. Feeds on tadpoles and frogs. Inoffensive. When handled, coil hindbody and tail around fingers and make no attempt to bite.

Distribution

India: Arunachal Pradesh (Patkai Hills) at 1040m (3410ft); Meghalaya (Jayantia Hills). Also Myanmar and China.

Look-alikes

Other keelbacks.

ADULT - Near Gandhigram village, Arunachal Pradesh, India

AC

Venning's Keelback

Amphiesma venningi

NON VENOMOUS, RARE

Maximum 780mm (31in)

Venning's Keelback

Amphiesma venningi

NON VENOMOUS, RARE

Maximum 780mm (31in)

ADULT - Near Gandhigram village, Arunachal Pradesh, India

AC

ADULT - Near Gandhigram village, Arunachal Pradesh, India

Venning's Keelback *Amphiesma venningi*

NON VENOMOUS, RARE Maximum 780mm (31in)

Khasi Hills Keelback

Amphiesma khasiense

NON VENOMOUS, COMMON

Maximum 600mm (24in)

Description

Slender-bodied; scales strongly keeled. Head broader than neck; large eye has round pupil. Three dark blackish-brown stripes on the back that alternate with four cherry-reddish-brown stripes. Uppermost stripe dark blackish-brown. Pattern usually indistinct. Top of head grayish-brown with pale brown, worm-like marks. Lip scales white with blackish-brown edges; pattern continues on to sides of neck. Tongue black. Belly scales white; outer edges cherry-reddish-brown and form part of the lowest stripe.

Scalation

Scales in 19 : 19 : 17 rows, keeled. Ventrals 143-155; anal divided; subcaudals 73-110, paired. Supralabials 9 (4th to 6th touching eye), rarely 8; preoculars 1 or 2; postoculars 3; temporals 1+1 or 1+2, rarely 2+1 or 2+2. Internasals truncate anteriorly. A juvenile with 143 ventrals and umbilical scar on 127th-129th ventral was found on 20th June, 1999.

Natural History/ Behavior

Diurnal and terrestrial. Eats tadpoles and frogs. A juvenile was seen moving towards a puddle that contained small frogs and tadpoles in the early morning (0500 hrs). Lays eggs; young observed in June and October. When handled, will attempt to constrict fingers with tail and hindbody. Curiously, most adults and juveniles have missing tail tips.

Distribution

India: Meghalaya (Khasi and Garo Hills) to Arunachal Pradesh (Changlang district). Also Myanmar.

Look-alikes

Other keelbacks.

ADULT - Gandhigram village, Changlang district, Arunachal Pradesh, India

Khasi Hills Keelback

Amphiesma khasiense

NON VENOMOUS, COMMON

Maximum 600mm (24in)

Cherrapunji Keelback

Amphiesma xenura

NON VENOMOUS, RARE

Maximum about 660mm (26in)

Description

Slender-bodied with very rough, dull scales. Eye has round pupil. Dark olive-brown, dark gray or black back, with a series of paired rust-orange, pale brown, yellow or white spots on each side of upper back. Adjacent spots sometimes connected by faint black cross-lines. Some older snakes almost entirely gray. White dotted line from behind eye curves onto neck; another from behind mouth joins this line. Lip scales white, separated by black lines. Juveniles often have light colored scales on head. Belly scales white or yellow; their outer edges have dark brown spots. Color beneath tail much darker.

Scalation

Scales in 19 rows at midbody, strongly keeled. Ventrals 158-165; anal entire or divided; subcaudals 81-107 entire. Preocular 1; postoculars 3; supralabials usually 9 (3rd and 4th touching eye); temporals 2+2; internasals as long as or shorter than prefrontals. The only keelback in the region with entire subcaudals.

Natural History/ Behavior

Almost unknown. Has been found near small streams in grassy patches. Lays eggs.

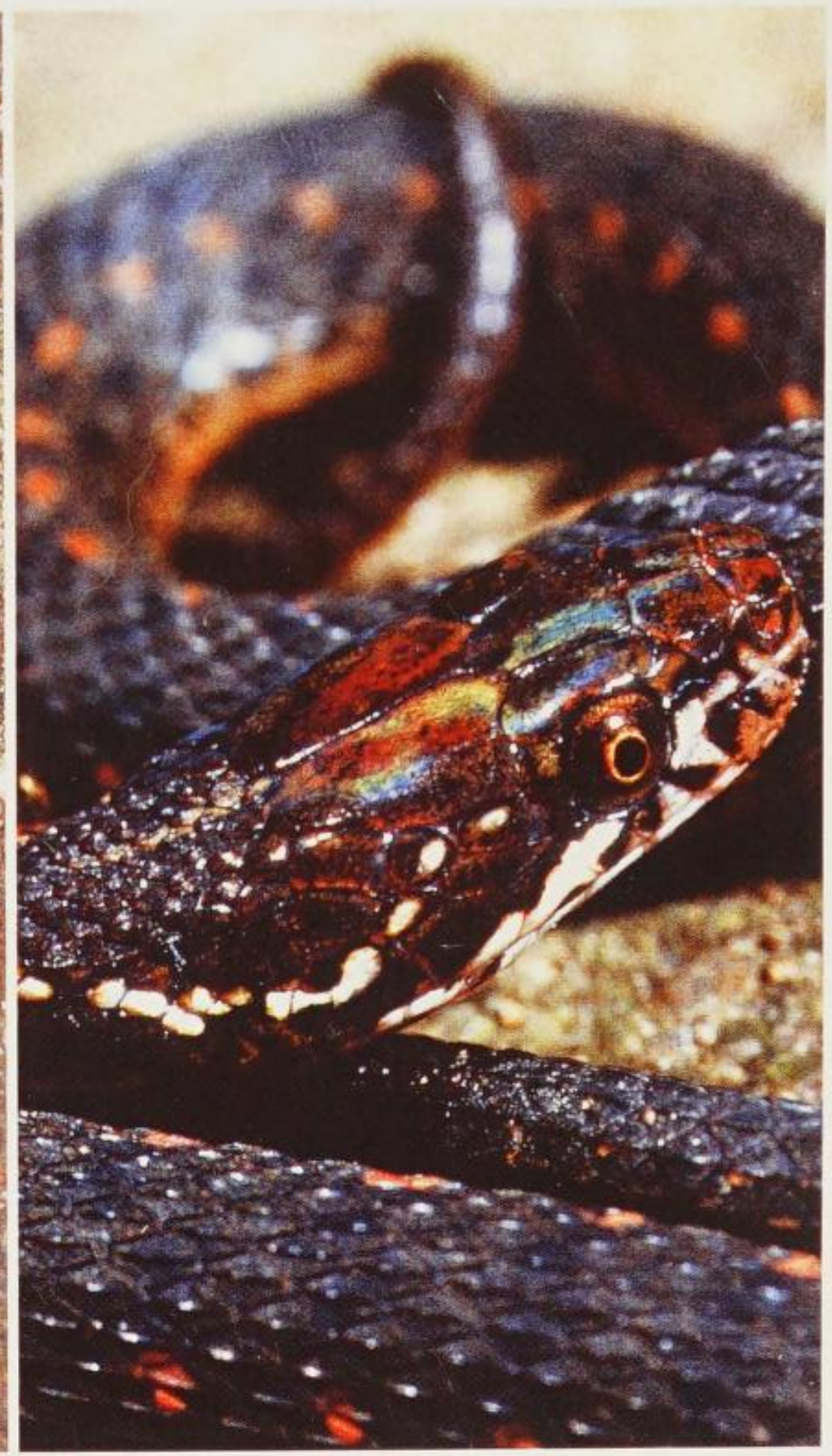
Distribution

Endemic to India. Presently known from three localities in Northeast India – Meghalaya (Khasi Hills); Nagaland (near Kohima) and Mizoram (Palak Lake).

Look-alikes

Other keelbacks.

ADULT - Palak Lake, Mizoram, India



SAMRAAT PAWAR

Cherrapunji Keelback

Amphiesma xenura

NON VENOMOUS, RARE

Maximum about 660mm (26in)

Checkered Keelback

Xenochrophis piscator

NON VENOMOUS, COMMON

At hatching 125-215mm (5-9in)
Adults 600mm (24in)
Maximum 1750mm (69in)

Description

Scales keeled. Head broader than neck. Eye has round pupil. Two bold black streaks – one below, the other from eye to angle of mouth. Glossy olive green, olive brown, yellow, brown, gray or black, usually with a checkered body pattern. Pattern may vary from light markings to bold, black, closely set spots or checks. Region between "checks" sometimes marked with varying shades of pink or red. Underside glossy white or yellowish-white.

Scalation

Scales in 19 rows at midbody, keeled. Ventrals 122-158; anal usually divided; subcaudals (60) 70-97, paired. Internasals distinctly narrowed anteriorly. Supralabials 9 (4th and 5th touching eye, 6th excluded by lowest postocular); preocular 1; postoculars 3; temporals 2+2 or 2+3.

Natural History/ Behavior

Active by day and night. Found in and around freshwater bodies and paddy fields. Perhaps the most plentiful snake in India. Many are killed on roads after the first rains arrive. Young feed on frog eggs, tadpoles, and water insects; older snakes eat fish, frogs, occasionally rodents and birds. Lays up to 90 eggs December-March in rat tunnels, holes in wells, walls or field embankments, and stays with them until they hatch in 60-70 days. Aggressive when threatened or cornered. Though they bite readily when stepped on or caught, we have swum in ponds inhabited by Checkered Keelbacks without ever being bitten. Will sidewind rapidly over hard ground to escape. When excited, flattens head, extends neck ribs, and rears up. Sometimes mistaken for a cobra in this position.

Distribution

Throughout India and the rest of South Asia except the Andaman & Nicobar Islands.

Look-alikes

Olive Keelback.
Cobras.
Common Smooth-scaled Water Snake.

ADULTS - Pune district, Maharashtra, India • Inset lower left: Valparai, Tamil Nadu, India

AC • Inset lower left: S.U. SARAVANAKUMAR

Checkered Keelback

Xenochrophis piscator

NON VENOMOUS, COMMON

At hatching 125-215mm (5-9in); adults 600mm (24in); maximum 1750mm (69in)

St. John's Keelback *Xenochrophis sanctijohannis*

NON VENOMOUS, COMMON IN PARTS OF RANGE Maximum 1095mm (43in)

Description

Scales smooth or very weakly keeled. Head broader than neck. Eye has round pupil. Black streak absent behind and below eye. Almost uniform glossy silver-gray or dark olive-gray. Some adults may have a zigzag pattern or a few dark scales scattered in between olive-yellow scales. Underside glossy white or yellowish-white. Juveniles resemble adults or are uniform olive green. (The look-alike Checkered Keelback Water Snake has two usually conspicuous, black streaks behind eye and usually has distinctly keeled scales).

Scalation

Scales in 19 rows at midbody; weakly keeled, outer 3 rows smooth. Ventrals 139-159; anal usually divided; subcaudals 80-98. Internasals distinctly narrowed anteriorly. Supralabials 9 (4^{th} or 4^{th} and 5^{th} touching eye); infralabials 10; preocular 1; postoculars 2 or 3, rarely 4; temporals 2+2 or 2+3.

Natural History/ Behavior

Probably active by day and night. Similar in habit to the Checkered Keelback Water Snake, except this species usually prefers higher elevation. Found in and around freshwater bodies and paddy fields. Feeds on fish, frogs and small rodents. May hibernate during cooler months. One was seen lying under a log where it remained from October to late December. Aggressive when threatened, cornered or handled. When excited, flattens head, extends neck ribs and rears up.

Distribution

India: Arunachal Pradesh (Changlang district), Jammu & Kashmir, Himachal Pradesh (Kulu), West Bengal (Darjeeling) and "Chanda". Also Pakistan and Nepal. Found between 407-1400m (1335-4600ft).

Look-alikes

Checkered Keelback

ADULT - Near Gandhigram village, Changlang district, Arunachal Pradesh, India

St. John's Keelback *Xenochrophis sanctijohannis*

NON VENOMOUS, COMMON IN PARTS OF RANGE Maximum 1095mm (43in)

Andaman Keelback

Xenochrophis melanzostus

NON VENOMOUS, COMMON

Maximum 1000mm (39in)

Description

Stout-bodied; scales strongly keeled. Head broader than neck. Eye has round pupil. Two bold black streaks – one below, other behind eye. Pale brown with black stripes, blotches or both. Body pattern extremely variable. Three typical forms: (i) Scales most strongly keeled of all forms. Cream or enamel white with a series of large, squarish, dark brown, black-edged blotches on either side of vertebral line. Blotches entirely black, paired or alternate. Sometimes an additional series of smaller, squarish spots on lower side of body. Underside cream, some belly scales have black outer margins. (ii) Pale brown, striped from neck to midbody. There may be two broad, black stripes separated by a thin, pale brown vertebral line; or the "stripe" may consist of an irregular fusion of thick, black bars – separated by pale brown lines. Hindbody and tail have large, black (sometimes light-centered) spots – those on sides of tail may join to form a line. Underside cream, some belly scales have black outer edges. (iii) Pale brown with 4-5 black or dark brown stripes along entire length of body and tail. Stripes narrower and less distinct on hindbody; lateral stripes often broken into a dotted line on each side of tail. Lip scales and underside cream. Juveniles have additional narrower, pinkish-brown stripes, the color of which is only on scale edges.

Scalation

Scales in 19 : 19 : 17 rows, keeled. Ventrals 135-152; anal divided or entire; subcaudals (59) 74-89, paired. Internasals distinctly narrowed anteriorly. Supralabials 9 (4th and 5th touching eye); preocular 1; postoculars 3; temporals 2+2 or 2+3.

Natural History/ Behavior

Mostly nocturnal, occasionally diurnal. Found in and around freshwater bodies and paddy fields. The most common snake on the islands, especially during the rains. Feeds on frogs, fish, and skinks. Lays 10-30 eggs and probably stays with them during incubation. When alarmed, flattens head, extends neck ribs, and rears up. Aggressive and snappy when threatened or cornered.

Distribution

India: Andaman and possibly Nicobar Islands. Also many islands in Southeast Asia, including Java and Sumatra.

Look-alikes

None.

ADULTS - North Wandoor, South Andaman Island • Bottom: JUVENILE - Cuthbert Bay, Middle Andaman Island, India

SAMEER GHODKE

Andaman Keelback

Xenochrophis melanzostus

NON VENOMOUS, COMMON

Maximum 1000mm (39in)

Triangle-spotted Keelback *Xenochrophis trianguligerus*

NON VENOMOUS, COMMON IN PARTS OF RANGE Maximum 1350mm (53in)

Description

Adults stout-bodied; scales keeled. Head slightly broader than neck; eye has round pupil. Adults (on Great Nicobar) are uniform blackish-gray, or have indistinct, uneven, darker gray or black cross-lines on body and tail. Cross-lines are simple, oblique or may break up into checkered pattern. Lip scales white, brownish-gray or yellowish; some or all with black vertical edges. Belly scales cream or off-white; underside of tail similarly colored, densely spotted with black. Juveniles are slender-bodied, similar to adults in color, but with downward-pointing, light-centered, triangular spots that descend onto reddish-orange sides of body.

Scalation

Scales in 19 or 17 rows at mid-body, strongly keeled; outer 1 or 2 rows smooth. Ventrals: 132-150; subcaudals: 86-105; anal usually divided. Internasals narrowed anteriorly, their anterior margins truncate. Supralabials 9 (4^{th} to 6^{th} touching eye). No postocular stripes. Preocular 1; postoculars 3; temporals 2+2 or 1+2.

Natural History/ Behavior

Nocturnal. Primarily a lowland, semi-aquatic species. Found in and around fresh water bodies and paddy fields. Feeds on frogs, their eggs, tadpoles, small birds, and rodents. Several clutches of 5-15 eggs laid in a year.

Distribution

India: common on Great Nicobar Island; uncommon on Little Nicobar Island. Also much of Southeast Asia (Thailand, Malaysia, Singapore, Myanmar and Indonesia). Has been found up to 1400m (4590ft).

Look-alikes

None.

ADULT - Shompen Hut Complex, Great Nicobar Island, India • Inset lower right: JUVENILE - Thailand

SAMEER GHODKE • Inset lower right: WOLFGANG GROSSMAN

Triangle-spotted Keelback

Xenochrophis trianguligerus

NON VENOMOUS, COMMON IN PARTS OF RANGE

Maximum 1350mm (53in)

Himalayan Keelback

Rhabdophis himalayanus

PROBABLY VENOMOUS, COMMON

Maximum 1250mm (49in)

Description

Scales strongly keeled. Head broader than neck. Large eye has round pupil. Upper body olive or dull gray, usually dotted with black; a series of small yellow spots or short cross-lines on each side of hindbody. Back of head has bold, broad, yellow or orange collar, usually broken in middle. Back of collar bordered with black. Some individuals have small, bright red or orange forebody checks. Lip scales white or yellow, separated by black lines; usually two oblique black lines – one below, other behind eye. Underside glossy, steel gray, black; or yellow speckled with black.

Scalation

Scales in 19 rows at mid-body, strongly keeled. Ventrals 151-177; anal divided; subcaudals 78-98, paired. Internasals broadly truncate anteriorly. A nuchal groove; three median rows of scales behind collar narrower than adjacent rows. Supralabials 8 (4th and 5th touching eye); preocular 1; postoculars 3; temporals 2+2 or 2+3 (rarely 1+2).

Natural History/ Behavior

Diurnal and terrestrial. Seen near riverbanks as well as in forests. Feeds on frogs; eats small mammals in captivity. Lays 5-7 eggs. A pair was seen mating in late July, but they mate earlier as well; a very small juvenile was seen in early June. If disturbed or while hunting, raises head and neck. Vibrates tail when excited. Though they lack true fangs, some keelbacks (*Rhabdophis*) have very large teeth back of the upper jaw (maxilla) and toxic saliva. Bites where "salivenomation" has occurred can be serious. In these cases, the snake would have held on and "chewed" enough saliva in. Though nothing is known about the effects of a bite from this species, a bite from a young Red-necked Keelback produced severe reactions in an adult man.

Distribution

India: the eastern Himalayas from Sikkim to Arunachal Pradesh. Also Nepal, China, Bangladesh, and Myanmar.

Look-alikes

Red-necked Keelback.

ADULT - Near Gandghigram village, Changlang district, Arunacal Pradesh, India

Himalayan Keelback

Rhabdophis himalayanus

PROBABLY VENOMOUS, COMMON

Maximum 1250mm (49in)

Red-necked Keelback

Rhabdophis subminiatus

VENOMOUS, COMMON

At hatching 130-190mm (5-7in)
Maximum *R. s. subminiatus* 750mm (30in)
Maximum *R. s. helleri* 1300mm (51in)

Description

Scales strongly keeled. Head broader than neck. Large eye has round pupil. Two subspecies: (i) Schlegel's Red-necked Keelback (*R. s. subminiatus*). Head and front of neck olive brown, sometimes followed by backward-pointing yellow band – behind which is bright red interscale color of neck and forebody; rest of body and tail grayish-olive with faint black and yellow markings. Distinct oblique black bar below eye. Some lip scales separated by black lines. Underside yellowish, sometimes with a black dot at outer edge of each belly scale. Juveniles (and some subadults) more brightly colored, and usually have a broad black/dark collar or patch on neck, bordered by yellow behind. (The look-alike Himalayan Keelback has a yellow collar with black hind margin). (ii) Schmidt's Red-necked Keelback (*R. s. helleri*). Almost uniform olive-green with red neck. Black line from eye to upper lip scales absent or indistinct. Lip scales gray or white; underside powdered with gray. Juveniles as described above. Whether only one, or both subspecies occur in India remains to be determined.

Scalation

Common characters: scales strongly keeled in 19 rows at midbody; anal divided; internasals broadly truncate anteriorly; supralabials usually 8 (3rd to 5th touching eye), rarely 9 (4th to 6th touching eye); 1 preocular; postoculars 2 or 3; temporals 2+2 or 2+3; subcaudals paired. *R. s. subminiatus*: ventrals 137-164; subcaudals 72-89. Nuchal scales not enlarged; nuchal groove indistinct or absent. *R. s. helleri*: ventrals 157-173; subcaudals 72-96. Nuchal scales enlarged; nuchal groove distinct.

Natural History/ Behavior

Diurnal. Inhabits wet forests, paddy fields, grasslands and marshes. Eats frogs, toads, lizards and small mammals. Lays 5-17 eggs in June-July. When alarmed, raises head and neck and spreads a slight hood. Though lacking true fangs, it has ungrooved, greatly enlarged rear teeth and highly toxic saliva. Even bites from juveniles have resulted in severe symptoms.

Distribution

India: eastern Himalayas from Sikkim and Assam to Arunachal Pradesh. Also Nepal, Myanmar, China, Thailand, Cambodia, Vietnam, Laos, Malaysia and Indonesia. Found up to 1780m (5840ft).

Look-alikes

Himalayan Keelback.

WOLFGANG WÜSTER

Red-necked Keelback

Rhabdophis subminiatus

VENOMOUS, COMMON

At hatching 130-190mm (5-7in); maximum 750mm (30in)

Striped Keelback

Amphiesma stolatum

NON VENOMOUS, COMMON

At hatching 90-170mm (4-7in)
Adult length 400mm (16in)
Maximum 800mm (32in)

Description

Slender-bodied with keeled scales. Brown back with two distinct ribbon-like yellowish stripes from neck to tip of tail. Forebody has additional black or dark brown cross-bars or spots that fade towards the tail. Head light brown or olive above, lips and area in front of and behind eye yellowish. Throat white or yellow. Underside white, sometimes each belly scale has a small black spot on either side. Two well-defined color forms occur in India: (i) with blue interscale color (*forma typica*); (ii) with bright vermilion interscale color (variety *erythrostictus*).

Scalation

Scales in 19 (17 or 20) : 19 : 17 rows, keeled with more or less bidentate tips. Ventrals 118-161; anal usually divided; subcaudals 46-89, paired. Internasals truncate, but distinctly narrowed anteriorly. Supralabials 8 (3rd to 5th touching eye); a single anterior temporal.

Natural History/ Behavior

One of India's most common diurnal snakes. Frequents paddy fields, ponds, thick grass, bushes, and gardens. Young feed on insects, tadpoles, small toads and frogs; adults prefer frogs but also eat toads, snails, small lizards and rodents. Known to estivate in the hot, dry regions of its distribution, or hibernate in the colder areas. Egg-laying reported throughout the year; 5-15 eggs laid at a time. Female may stay with eggs. A remarkably gentle snake. When alarmed, may flatten forebody exhibiting interscale color. On handling, a subadult from Maharashtra (near Mumbai) played dead.

Distribution

Throughout mainland India (records from the Andamans unlikely). Also Pakistan, Nepal, Bhutan, Bangladesh and Sri Lanka.

Look-alikes

Common Trinket Snake.
Beddome's Keelback.

ADULT - Maharashtra, India

Striped Keelback

Amphiesma stolatum variety *erythrostictus*

NON VENOMOUS, COMMON

At hatching 90-170mm (4-7in), adult length 400mm (16in), maximum 800mm (32in)

Striped Keelback

Amphiesma stolatum

NON VENOMOUS, COMMON

At hatching 90-170mm (4-7in), adult length 400mm (16in), maximum 800mm (32in)

Both top - SHOMEN MUKHERJEE

Bottom left - RW; bottom right AC

ADULTS - Top: Marunji village, Pune district, Maharashtra, India • Bottom left: Mangalore, Karnataka, India • Bottom right: Itanagar, Papum Pare district Arunachal Pradesh, India

ADULT - Itanagar, Papum Pare district, Arunachal Pradesh, India

Striped Keelback

Amphiesma stolatum

NON VENOMOUS, COMMON

At hatching 90-170mm (4-7in), adult length 400mm (16in), maximum 800mm (32in)

Himalayan Mountain Keelback — *Amphiesma platyceps*

MILDLY VENOMOUS, COMMON

At hatching 195-245mm (8-10in)
Maximum 940mm (37in)

Description

Slender-bodied. Head broader than neck; large eye has round pupil. Pattern and color extremely variable. Shades of brown or gray on the back, with small black spots and sometimes several series of short white lines that run along the body. Side of body may be striped. Often has black streak from snout tip to angle of mouth and another below eye. Lip scales white or pale yellow. Back of head often has two white, black-edged lines or U shaped mark. Belly white, yellowish-cream or pale orange; sometimes with dark streaks – especially towards the tail. Underside of tail mottled with black; throat sometimes similarly colored.

Scalation (after Malnate)

Scales in 19 : 19 : 17 rows, weakly keeled. Ventrals 191-234; subcaudals 78-98, paired. Prefrontals extend well on to side of head (above loreal). Loreal 1 (sometimes absent or fused to prefrontal). Supralabials 7 or 8 (3rd to 5th touching eye); preocular 1; temporals 1+1 (3), rarely 2+2. Maxillary teeth 18-22 (last 2-3 strongly enlarged). Internasals truncate anteriorly.

Natural History/ Behavior

A montane species. Active in the evening. Found in forests and also near small villages and fields. Eats fish; frogs, their spawn and tadpoles, toads; skinks; snakes and their eggs; and small mammals. Lays eggs.

Distribution

India: Himalayas from Kashmir in the West to the Abor and Khasi Hills in the Northeast up to 3657m (12,000ft). Also Pakistan, Nepal, Tibet, Bhutan, and Bangladesh. Old records from Myanmar need confirmation.

Look alikes

Other keelbacks.

ADULT - Nepal

FRANK TILLACK

Himalayan Mountain Keelback *Amphiesma platyceps*

MILDLY VENOMOUS, COMMON At hatching 195-245mm (8-10in); maximum 940mm (37in)

Himalayan Mountain Keelback

Amphiesma platyceps

MILDLY VENOMOUS, COMMON

At hatching 195-245mm (8-10in); maximum 940mm (37in)

Top left: ADULT - Nepal • Top right: JUVENILE, Nepal • Bottom: JUVENILE - Nepal

FRANK TILLACK

ADULT - Nepal

FRANK TILLACK

Himalayan Mountain Keelback

Amphiesma platyceps

MILDLY VENOMOUS, COMMON

At hatching 195-245mm (8-10in); maximum 940mm (37in)

Beddome's Keelback

Amphiesma beddomei

NON VENOMOUS, COMMON

Maximum 690mm (27in)

Description

Slender-bodied; scales keeled. Head broader than neck; eye has round pupil. Adults: brown back with variable black and dull yellow or white pattern; white underside, belly scales may have a brown dot on each side. Pattern variations: (i) a series of paired, dull yellow spots on the back between which are black cross-lines or dots; (ii) black markings dominate to form a series of broad, broken cross-bands that consist of several large, black squarish spots between which are two or more smaller, dull yellow spots (iii) pattern greatly reduced, pale brown forebody with few widely scattered black scales and others that are entirely white or dull yellow. Rest of body brown; some scales black- or white-edged. Juveniles: bluish-black or charcoal-black back, with pattern as in variation (i); the series of paired yellow spots are more noticeable than the black marks. Top of head light (caramel) brown with darker marks and a broad yellowish-white band on back of head (behind parietal scales). Lip scales separated by black lines. Beddome's Keelback has a broad, black-outlined white stripe behind the eye unlike the Hill Keelback (which has white or yellow scales in front, below, and behind each eye).

Scalation

Scales in 19 rows at midbody, keeled. Ventrals 140-150; anal usually divided; subcaudals 62-82, paired. Supralabials 8 (3rd to 5th touching eye) or 9 (4th to 6th touching eye); preocular 1, temporals 1+1 or 1+2, rarely 2+2.

Natural History/ Behavior

Diurnal. A forest species. Found near stream sides of high rainfall areas. Often seen on forest paths with raised head and neck. Prefers frogs, but also feeds on small toads.

Distribution

Endemic to India. Western Ghats: from Maharashtra (northernmost limit of range appears to be Mahableshwar), parts of Tamil Nadu to South Kerala between 500-2100m (1640-6890ft).

Look-alikes

Other keelbacks.
Common Trinket Snake.

ADULT - Koyna, Satara district, Maharashtra, India

Beddome's Keelback

Amphiesma beddomei

NON VENOMOUS, COMMON

Maximum 690mm (27in)

Beddome's Keelback

Amphiesma beddomei

NON VENOMOUS, COMMON

Maximum 690mm (27in)

ADULT - Anshi, Uttara Kannada district, Karnataka, India

KEDAR BHIDE

JUVENILE - Koyna, Satara district, Maharashtra, India

Beddome's Keelback

Amphiesma beddomei

NON VENOMOUS, COMMON

Maximum 690mm (27in)

Hill Keelback

Amphiesma monticola

NON VENOMOUS, UNCOMMON

Maximum 578mm (23in)

Description

Scales strongly keeled. Very large eye has round pupil. Olive brown or greenish back with broad black cross-bands or big squarish spots, which may be paired, and may have lighter spots or cross-lines in between. Top of head reddish-brown. White or yellow line across back of head (behind eye) and a white dot on each side of the central scale between eyes (frontal). Scales in front, below and behind eye white or yellow. Most upper lip scales separated by thin black lines. Underside white or yellow; throat and sides of neck sometimes bright orange (yellow in juveniles). Head of young sometimes dark brown above (from snout to eye) followed by a broad black band which is edged in front and behind, by a narrow, white line; other white head markings as in adult, but usually more prominent. Markings occasionally indistinct, even in young snakes.

Scalation

Scales in 19 rows at midbody, keeled. Ventrals 133-144; anal usually divided; subcaudals 78-92, paired. Supralabials 8 (3rd to 5th touching eye); preocular 1; temporals 2+2 or 2+3 (very rarely 1 anterior temporal).

Natural History/ Behavior

Diurnal. A forest snake. Found near stream sides of high rainfall areas. Eats frogs and toads. Lays eggs.

Distribution

Endemic to India. Western Ghats from Goa to South Kerala.

Look-alikes

Beddome's Keelback.

ADULT - Near Sringeri, Uttara Kannada district, Karnataka, India

VIVEK GOUR-BROOME

Hill Keelback

Amphiesma monticola

NON VENOMOUS, UNCOMMON

Maximum 578mm (23in)

Hill Keelback

Amphiesma monticola

NON VENOMOUS, UNCOMMON

Maximum 578mm (23in)

ADULT - Neria, Karnataka, India

RW

ADULT - Near Sringeri, Uttara Kannada district, Karnataka, India

VIVEK GOUR-BROOME

Hill Keelback

Amphiesma monticola

NON VENOMOUS, UNCOMMON

Maximum 578mm (23in)

False Cobra

Pseudoxenodon macrops

MILDLY VENOMOUS, UNCOMMON

At hatching 260mm (10in)
Maximum 1283mm (51in)

Description

Scales keeled. Head broader than neck; large eye has round pupil. Color and pattern extremely variable. Olive-brown, reddish-brown, gray or blue-black above, usually with a series of short yellowish, reddish-brown or orange, dark-edged crossbars along middle of back and tail. Additional series of indistinct black spots may be present on each side. Head same color as body; lip scales paler than top of head, some upper lip scales separated by narrow black lines. Back of head (nape) sometimes with a whitish, dark brown or black Λ shaped mark. Underside yellowish-white, anterior part with large black/dark brown cross-bands or alternating rectangular spots; portion of belly near tail and underside of tail densely mottled with brown, dark gray or black.

To emphasize the extreme variation in color and pattern within this species, we quote Frank Wall who described a collection of this species from around Darjeeling as, "The ornamentation of this species is very varied, and in some specimens extremely beautiful. In a young example the head was slaty-blue, behind this the nape bore a broad intensely black arrow-head, bordered behind with a narrower band of cinnamon. In some specimens the head is a rich dark green, in some the arrow-head is billiard-cloth green, in others lilac and in others is completely absent. In some the back is nearly uniformly olivaceous-green or brown. In some the series of dark costal spots is but obscure, in others very black or purplish. In some no trace of light cross-bars can be seen, in others they are more or less distinctly visible, in others very conspicuous, sometimes whitish, sometimes cinnamon, or the anterior whitish and the posterior cinnamon. Some specimens are checkered with green, black, amber and ochre spots. With all this variety of form, the specimens do not lend themselves to a grouping into color varieties, for scarcely two specimens are quite alike."

Scalation/ Dentition

Scales in 19 or 21 : 19 or 17 : 15 rows; keeled, obliquely arranged on forebody. Ventrals 151-185; anal divided; subcaudals 55-80, paired. Mature males have scales with "knobbed-keels" in the ischiadic region (in front of the anals). Supralabials 8 (4th and 5th touching eye); loreal large, 1; preocular 1; postoculars 3; temporals 2+2 or 2+3. Maxillary teeth 25-27, increasing in size posteriorly, last two distinctly larger and separated from the others by a gap.

Natural History/ Behavior

Diurnal. Mostly terrestrial. Often found near forest streams. Feeds on frogs and sometimes geckos and shrews. Lays up to 10 eggs. A female in Myanmar (Chin Hills), captured on 20th May, contained six eggs with well-developed embryos. When alarmed, flattens neck and raises forebody to display a "hood." In this posture it bears a remarkable resemblance to a cobra.

ADULT - Yunnan, China

ANDREAS GUMPRECHT

False Cobra

Pseudoxenodon macrops

MILDLY VENOMOUS, UNCOMMON

At hatching 260mm (10in); maximum 1283mm (51in)

False Cobra

Pseudoxenodon macrops

MILDLY VENOMOUS, UNCOMMON

At hatching 260mm (10in)
Maximum 1283mm (51in)

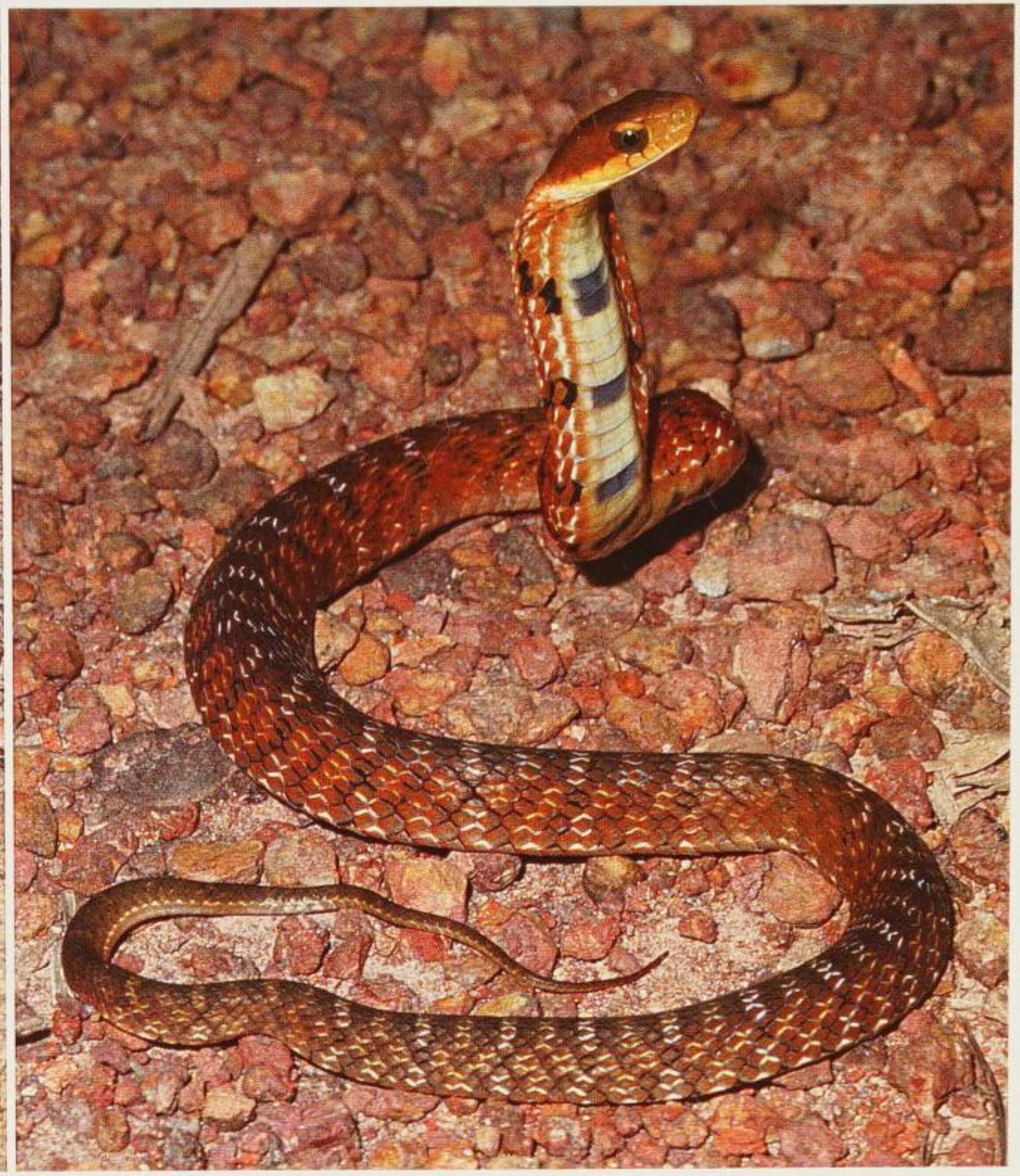
Distribution

India: the Northeast from Darjeeling to Arunachal Pradesh. Also Nepal, Bhutan, China, Myanmar, Thailand, and Malaysia. From 150-2000m (490-6560ft).

Look-alikes

Cobras.
Other keelbacks.

ADULT - Thailand



WOLFGANG GROSSMAN

False Cobra

Pseudoxenodon macrops

MILDLY VENOMOUS, UNCOMMON

At hatching 260mm (10in); maximum 1283mm (51in)

False Cobra

Pseudoxenodon macrops

MILDLY VENOMOUS, UNCOMMON

At hatching 260mm (10in); maximum 1283mm (51in)

WOLFGANG GROSSMAN

ADULT - Thailand

WOLFGANG GROSSMAN

False Cobra

Pseudoxenodon macrops

MILDLY VENOMOUS, UNCOMMON

At hatching 260mm (10in); maximum 1283mm (51in)

Green Keelback

Macropisthodon plumbicolor

NON VENOMOUS, UNCOMMON*

At hatching 75mm (3in)
Adults 550mm (22in)
Maximum 940mm (37in)

Description

Stout-bodied. Scales on body strongly keeled, those on upper surface of head smooth, large and variable in size. Large eye has round pupil. Bright or dull green overall, sometimes with faint irregular black cross-lines. Belly grayish or glossy white. Young snakes have a bright yellow (rarely orange) Λ shaped mark on neck, bordered on both sides by a dark blue-black area and also have a black stripe from eye to angle of mouth. These markings are absent in adults. Green Keelbacks are often mistaken for green pit vipers (all of which have vertical pupils).

Scalation

Scales in 23 or 25: 25 or 27: 17 or 19 rows, strongly keeled. India. Ventrals 144-162; subcaudals paired: males 39-48, females 34-43. Sri Lanka. Ventrals (fide Taylor) 151-154; subcaudals paired: males 40-45, females 37-47. Common characters: anal usually divided; loreal often united with lower preocular; preoculars 2; postoculars 3 or 4; temporals 2+3; supralabials 7 (3rd and 4th touching eye).

Natural History/ Behavior

Nocturnal and crepuscular. Found in grass and low vegetation; also in gardens in towns and cities within range. Prefer toads to all other prey. In Bangalore, clutches of 8-14 eggs that hatch in August-September have been recorded. Usually gentle and inoffensive. When frightened, may erect forebody and flatten neck "cobra style", or flatten whole body on the ground revealing blue and/or white interscale coloration.

Distribution

India: whole of the mainland except the east coast, Ganges Valley and the extreme Northwest; *common in parts of Maharashtra. Also Pakistan, Bangladesh and Sri Lanka. Found up to 2000m (6562ft).

Look-alikes

Green pit vipers.

ADULT - Pune district, Maharashtra, India

Green Keelback

Macropisthodon plumbicolor

NON VENOMOUS, UNCOMMON*

At hatching 75mm (3in); adults 550mm (22in); maximum 940mm (37in)

Green Keelback

Macropisthodon plumbicolor

NON VENOMOUS, UNCOMMON*

At hatching 75mm (3in); adults 550mm (22in); maximum 940mm (37in)

ADULT - Pune district, Maharashtra, India

JUVENILE - Pune, Maharashtra, India

Green Keelback

Macropisthodon plumbicolor

NON VENOMOUS, UNCOMMON*

At hatching 75mm (3in); adults 550mm (22in); maximum 940mm (37in)

Olive Keelback

Atretium schistosum

NON VENOMOUS, UNCOMMON

At hatching 100mm (4in)
Adults 450mm (18in)
Maximum 1000mm (39in)

Description

Scales keeled. Uniform olive green or olive-brown, sometimes with two series of small black spots along the back; upper lip and underside yellow, orange or white. Some have a red streak bordering the two colors.

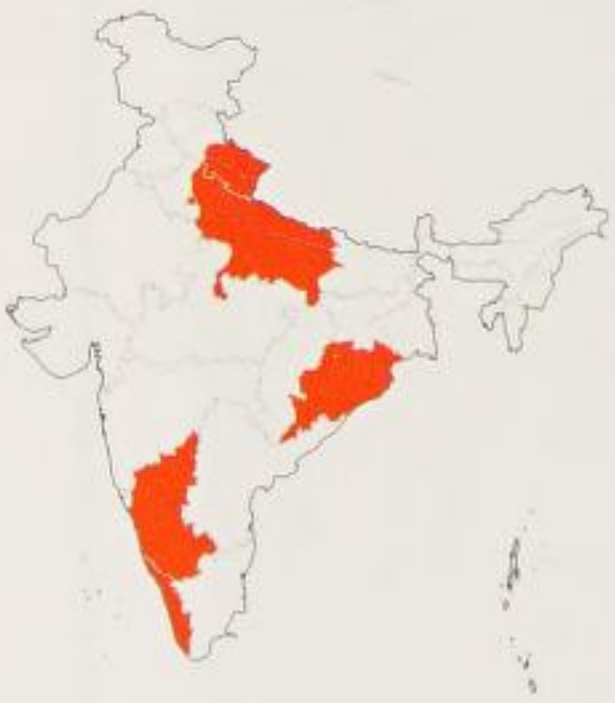
Scalation

Scales in 19 : 19 : 17 rows, keeled. Ventrals 129-160; anal divided; subcaudals 53-85, paired. Supralabials 8 (3rd and 4th touching eye) or 9 (4th and 5th touching eye); preocular 1, postoculars 2-3; temporals 2+2.

Natural History/ Behavior

Diurnal. Found in tanks and ponds. Climbs well. Feeds on tadpoles, fish, frogs and even mosquito larvae. Lays 12-30 eggs from December through March. One pair was observed mating on 26th August for 43 hours in Bangalore. A gentle snake, but may flatten neck when alarmed.

Distribution



Kerala (Anamalai hills and Wynad); Karnataka (Mysore, Bangalore); Uttar Pradesh and Orissa. Also Sri Lanka, Bangladesh and Nepal. Found up to 1000m (3280ft).

Look-alikes

Other keelbacks.

ADULT - Near Bangalore, Karnataka, India

RW

Olive Keelback

Atretium schistosum

NON VENOMOUS, UNCOMMON

At hatching 100mm (4in); average length 450mm (18in); maximum 1000mm (39in)

Olive Oriental Slender Snake

Trachischium laeve

NON VENOMOUS, RARE

Maximum 572mm (23in)

Description

Body cylindrical. Scales smooth, except near anal region where they are keeled. Head not broader than neck; small eye has round pupil; tail short with pointed, conical tip. Uniform dark gray or olive-brown with an iridescent sheen. Underside dark orange or coral red; hind belly scales and those under tail sometimes mottled with gray.

Scalation (after Tillack)

Scales in 13 : 13 : 13 rows, those adjacent to anal distinctly keeled in males. Ventrals 140-152; anal divided; subcaudals 29-40, paired. Prefrontals 2; preocular 1; postocular 1; supralabials 5 (3rd and 4th touching eye, last longest); temporals 1+1 or 1+2.

Natural History/ Behavior

Terrestrial. Found under stones or logs, sometimes on forest paths after heavy showers. Also found by farmers when digging. Diet not known with certainty, probably eats earthworms and small insects. Lays 3-6 eggs.

Distribution

India: western Himalayas – Uttaranchal (Pauri, Almora Mukteshwar, and near Nainital). Also Nepal. Found between 1650-2700m (5410-8860ft).

Look-alikes

Other Oriental slender snakes (not featured).
Lesser Black Kraits (not featured)
Black Krait juveniles.

JUVENILE - Landrung, Nepal

RALF HERMANN

Olive Oriental Slender Snake

Trachischium laeve

NON VENOMOUS, RARE

Maximum 572mm (23in)

Olive Forest Snake

Rhabdops olivaceus

NON VENOMOUS, RARE

Maximum 780mm (31in)

Description

Slender-bodied, smooth-scaled. Head broader than neck. Small, sometimes orange eye has vertically elliptical pupil which appears round. First scale on snout (rostral) very large and broader than its height. Olive brown or green to yellowish-brown with four lines of small black spots along length of body. Underside pale yellow or brown, occasionally peppered with olive green, often with a brown mid-belly stripe.

Scalation

Scales smooth in 17 : 17 : 17 rows. Ventrals 202-215, rounded; anal divided; subcaudals 62-74, paired. Internasals 2; prefrontals 2; preoculars usually 2 (upper may be fused with prefrontal; lower sometimes fused with loreal).

Natural History/ Behavior

Poorly known. Nocturnal. Found in hill forests. Previously believed to live and feed in leaf litter. However, two recent sightings of this snake actively foraging in hill streams indicates that this species may actually be semi-aquatic. The large snout scale aids foraging on stream beds. Eats slugs and soft-bodied worms.

Distribution

Endemic to India. Western Ghats. Known from only four localities: Kerala (Wynad), Karnataka (Kadur, Khalasa) and Maharashtra (Koyna).

Look-alikes

None.

ADULT - Maharashtra, India

AC

Olive Forest Snake

Rhabdops olivaceus

NON VENOMOUS, RARE

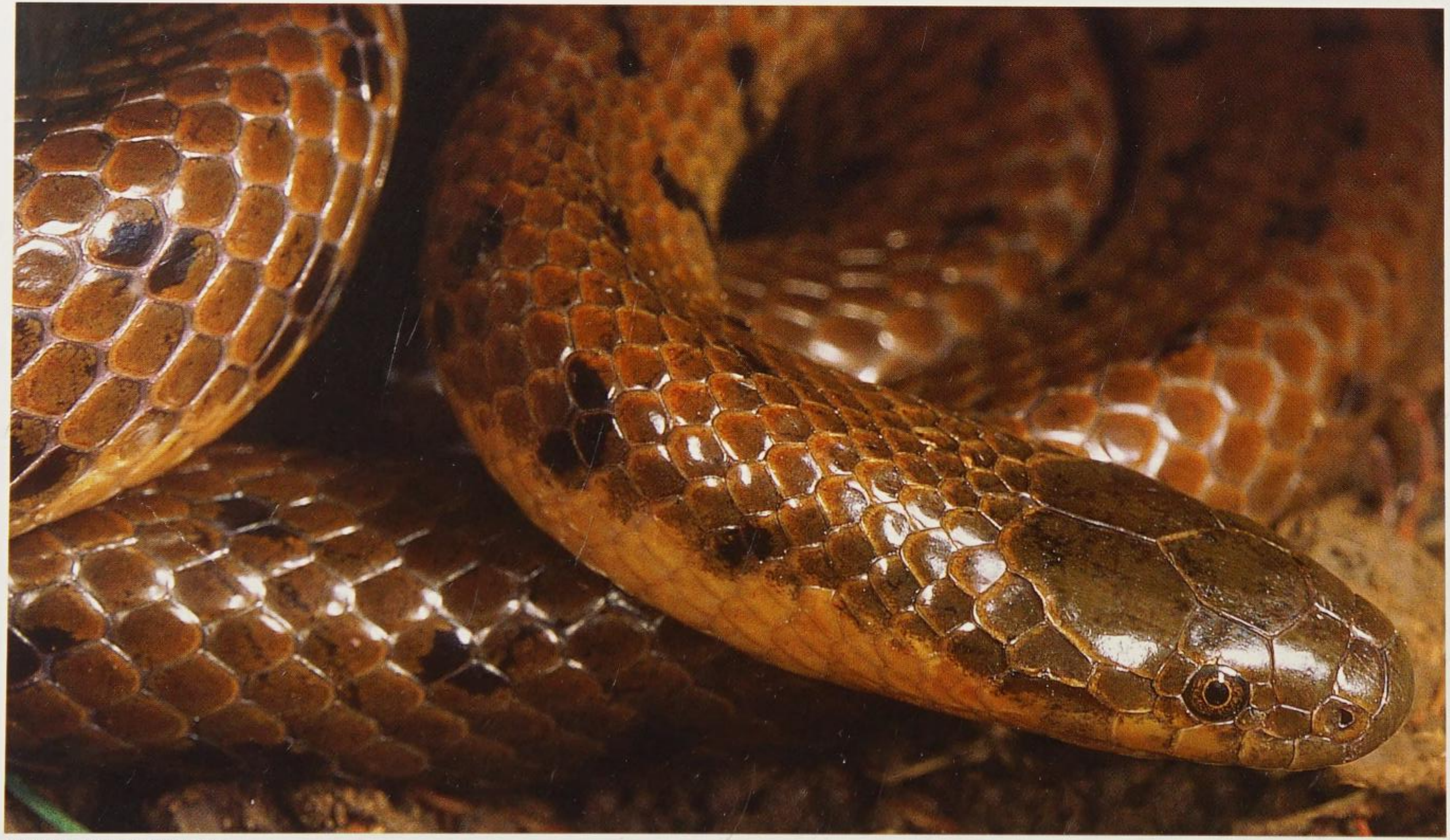
Maximum 780mm (31in)

Olive Forest Snake

Rhabdops olivaceus

NON VENOMOUS, RARE

Maximum 780mm (31in)



ADULT - Maharashtra, India

AC

ADULT - Maharashtra, India

Olive Forest Snake

Rhabdops olivaceus

NON VENOMOUS, RARE

Maximum 780mm (31in)

Iridescent Snake

Blythia reticulata

NON VENOMOUS, UNCOMMON

Maximum 514mm (20in)

Description

Very glossy, with smooth (sometimes light-edged) scales. Head not broader than neck; very short tail has pointed tip. Black, dark bluish-, or purplish-gray; sometimes olive above. A black, broken line usually along middle of the back. Belly scales have lighter colored hind margin. Young have a yellowish-white collar that is incomplete in the middle.

Scalation

Scales in 13 : 13 : 13 rows, smooth. Ventrals 122-157; anal divided; subcaudals males 26-32, females 16-24, paired, or rarely some unpaired. Supralabials 6, rarely 5 (3rd and 4th touching eye); Both loreal and preocular absent; 1 postocular; temporals 1+2.

Natural History/ Behavior

Found under logs and in decaying vegetation. Eats earthworms. Lays up to 6 eggs. A juvenile, total length 117mm (5in), was seen in June at 1040m (3410ft) in Arunachal Pradesh. Gentle, inoffensive in disposition.

Distribution

India: Northeast India from Assam to Arunachal Pradesh; up to at least 1040m (3410ft). Also Myanmar.

Look-alikes

Darjeeling Oriental Slender Snake.

Other Oriental Slender Snakes (not featured).

ADULT - Near Gandhigram village, Changlang district, Arunachal Pradesh, India

Iridescent Snake

Blythia reticulata

NON VENOMOUS, UNCOMMON

Maximum 514mm (20in)

Iridescent Snake

Blythia reticulata

NON VENOMOUS, UNCOMMON

Maximum 514mm (20in)

ADULT - Near Gandhigram village, Changlang district, Arunachal Pradesh, India

JUVENILE - Near Gandhigram village, Changlang district, Arunachal Pradesh, India

Iridescent Snake

Blythia reticulata

NON VENOMOUS, UNCOMMON

Maximum 514mm (20in)

Striped Narrow-headed Snake *Xylophis perroteti*

NON VENOMOUS, UNCOMMON Maximum 630mm (25in)

Description

Body cylindrical; scales smooth. Tapered head not broader than neck; small eye has round or oval pupil. Tail short. Glossy light or dark brown with thin stripes or dotted lines. Indistinct dull yellow collar sometimes present. Lip scales black and yellow or brownish. Underside gray or impure yellow, spotted with black, or nearly entirely brownish-black. A uniform brown specimen had yellow centered (or tipped) scales on hindbody and tail. Belly scales (ventrals) almost as broad as belly. (In look-alike shieldtails, ventrals are distinctly narrower than the belly).

Scalation

Scales in 13 : 13 : 13 rows, smooth. Ventrals: males 130-141, females 143-150; anal entire; subcaudals: males 25-40, females 14-20, paired. Supralabials 5 (1st very small; 2nd long and narrow; 3rd and 4th touching eye; 5th largest). Internasals very small; frontal very large, 3 to 4 times broader than supraocular; supraocular distinctly larger than postocular; loreal elongate (can be mistaken for preocular); preocular absent; postocular 1; anterior temporal 1. Anterior genials very large (unlike *Melanophidium*); mental groove present. First ventral touches posterior genials.

Natural History/ Behavior

Probably a burrower. Found in leaf litter in wet forests. Eats earthworms. There is a record of a Striped Coral Snake having swallowed one.

Distribution

Endemic to India. Higher ranges of the Western Ghats in Kerala and Tamil Nadu. Found over 1500m (4920ft).

Look-alikes

Günther's Narrow-headed Snake.
Shieldtails.

ADULT - Conoor, Nilgiris, Tamil Nadu, India

RW

Striped Narrow-headed Snake

Xylophis perroteti

NON VENOMOUS, UNCOMMON

Maximum 630mm (25in)

Günther's Narrow-headed Snake *Xylophis stenorhynchus*

NON VENOMOUS, UNCOMMON Maximum 230mm (9in)

Description

Body cylindrical; scales smooth. Tapered head not broader than neck; small eye has round or oval pupil. Tail short. Glossy uniform dark brown or with three stripes or dotted lines and a yellow collar. Underside dark brown. Belly scales (ventrals) almost as broad as belly. (In look-alike shieldtails, ventrals are distinctly narrower than the belly).

Scalation

Scales in 15 : 15 : 15 rows, smooth. Ventrals 108-132; anal entire; subcaudals: 12-31, paired. Supralabials 5 (1st smallest; 3rd and 4th touching eye; 5th largest). Internasals variable - very small or almost as long as prefrontals; frontal very large, 3 to 4 times broader than supraocular; supraocular not larger than or very slightly larger than postocular; loreal elongate (can be mistaken for preocular); preocular absent; postocular 1; anterior temporal 1. Anterior genials very large (unlike *Melanophidium*); mental groove present. First ventral touches posterior genials.

Natural History/ Behavior

Largely unknown. Probably a burrower. Found in leaf litter in wet forests. Probably eats earthworms.

Distribution

Endemic to India. Hills of Tamil Nadu (Anamalais to Tirunelveli).

Look-alikes

Striped Narrow-headed Snake.
Shieldtails.

ADULT - Valparai, Tamil Nadu, India

S.U. SARAVANAKUMAR

Günther's Narrow-headed Snake

Xylophis stenorhynchus

NON VENOMOUS, UNCOMMON

Maximum 230mm (9in)

Large-spotted Cat Snake

Boiga multomaculata

MILDLY VENOMOUS, UNCOMMON

At hatching 200mm (8in)
Adults 1000mm (39in)
Maximum 1870 mm (74in)

Description

Body long, thin and laterally flattened. Scales smooth. Head distinctly broader than neck; large eye has vertical pupil; tail long. Grayish-brown with dark brown markings that are edged with black, and again light brown. A double series of conspicuous spots alternate along the back; and also alternate with smaller spots along sides of body. Bold arrow-head mark followed by a single blotch on top of head. Dark stripe from eye to angle of mouth. Underside grayish-brown or impure white, marked with brown spots. This species is sometimes mistaken for Russell's Viper (which is stout, heavy-bodied with keeled scales and has a short tail that is abruptly set off from the hindbody).

Scalation

Scales in 19 : 19 : 15 or 13 oblique rows, smooth. Vertebral scales strongly enlarged. Ventrals 196-245; anal entire; subcaudals 72-109, paired. Preocular 1 or 2, does not reach upper surface of head; temporals 2+2 or 2+3.

Natural History/ Behavior

Nocturnal. Mainly arboreal; found on bushes and shrubs in wet forested areas, grassy slopes, gardens, and also on house walls. Eats birds and lizards. In captivity an adult female ate a male. Lays 4-8 eggs. Very shy. When alarmed, may open mouth widely, assume defensive posture with forebody inflated and coiled into several symmetrical S shaped loops, and strike repeatedly. May also rapidly vibrate tail tip.

Distribution

India: the Northeast from Assam to Arunachal Pradesh. Also southern China, Myanmar, Bangladesh, and much of Southeast Asia. Found up to about 1500m (4920ft).

Look-alikes

Vipers.
Other cat snakes.

JENNIFER DALIRY

Large-spotted Cat Snake

Boiga multomaculata

MILDLY VENOMOUS, UNCOMMON

At hatching 200mm (8in); adults 1000mm (39in); maximum 1870 mm (74in)

Large-spotted Cat Snake

Boiga multomaculata

MILDLY VENOMOUS, UNCOMMON

At hatching 200mm (8in); adults 1000mm (39in); maximum 1870 mm (74in)

WOLFGANG GROSSMAN

ADULT - Thailand

ADULT - Thailand

WOLFGANG GROSSMAN

Large-spotted Cat Snake

Boiga multomaculata

MILDLY VENOMOUS, UNCOMMON

At hatching 200mm (8in); adults 1000mm (39in); maximum 1870 mm (74in)

Tawny Cat Snake

Boiga ochracea

MILDLY VENOMOUS, UNCOMMON

Maximum 1100mm (43in)

Description

Body long, thin and laterally flattened. Scales smooth. Blunt head distinctly broader than neck; large eye has vertical pupil; tail long and thin. Coral red, reddish- or yellowish-brown (ochre) back; uniform or with faint black cross-lines (most distinct in young). Scale row along mid back strongly enlarged and sometimes lighter in color than adjacent scale rows. Occasionally has dark streak from eye to angle of mouth. Lips scales yellow or whitish. Underside: anterior belly scales yellow; those from midbody to tail tip light brown.

Scalation

Scales in 21 or 19 : 21 or 19 : 15 or 17 oblique rows, smooth. Vertebrals strongly enlarged. Ventrals 221-252 with a strong lateral keel; anal entire; subcaudals 89-119, paired. Preocular 1 (rarely 2) does not reach upper surface of head, postoculars 2 (rarely 3); temporals 2+2 or 2+3; supralabials 8 (4^{th} to 6^{th} touching eye).

Natural History/ Behavior

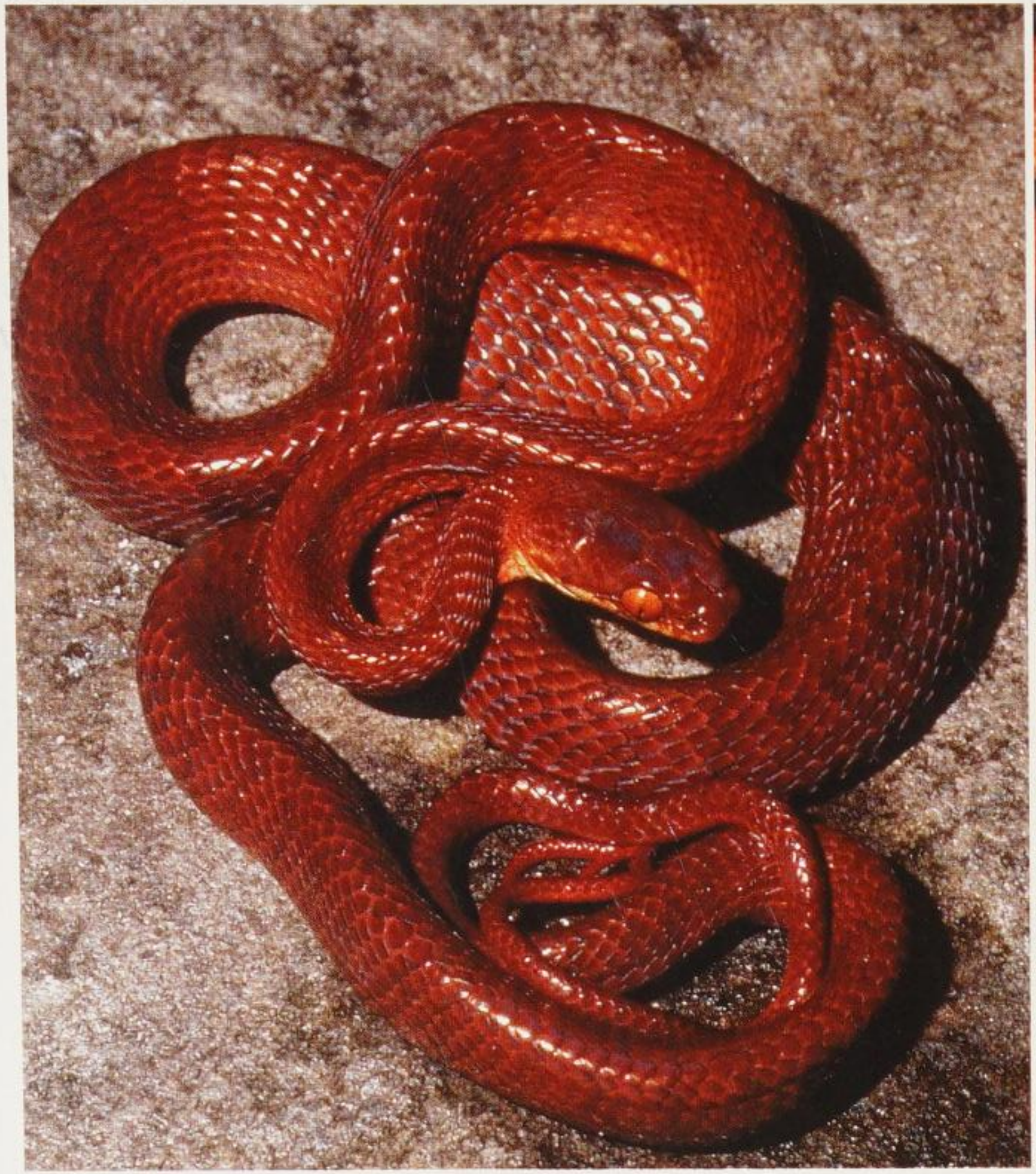
Nocturnal (sometimes seen at dawn/dusk). Mostly arboreal; seen on bushes and shrubs. Feeds on lizards, birds and their eggs, and also on small mammals. Mild venom harmless to humans. Lays eggs.

Distribution

India: eastern Himalayas from West Bengal (Darjeeling district, Buxar Duars); Sikkim; Assam (Goalpara, Sibsagar, Cachar); and probably throughout the Northeast; Andaman & Nicobar Islands. Also Nepal, Bhutan, Bangladesh, Myanmar. Found between 350-1400m (1150-4590ft). Though most authorities recognize three subspecies, their distribution remains unclear. This is a species complex that possibly contains at least three distinct species.

Look-alikes

Pit vipers.
Other cat snakes.



FRANK TILLACK

Tawny Cat Snake

Boiga ochracea stoliczkae

MILDLY VENOMOUS, UNCOMMON

Maximum 1100mm (43in)

Common Cat Snake

Boiga trigonata

MILDLY VENOMOUS, COMMON

At hatching 250mm (10in)
Adults 650mm (26in)
Maximum 1250mm (49in)

Description

Body long, thin and laterally flattened. Scales smooth. Head distinctly broader than neck; large eye has vertical pupil; tail very long. Light brown or tan with darker zigzag markings which may be connected. Top of head has a distinct, pale Y shaped mark, which is sometimes black-edged. Scales on top of head large, smooth, and of different shapes. Underside white or tan, sometimes with small black spots on outer edges of each belly scale. The Common Cat Snake is often mistaken for the Saw-scaled Viper (a stubby snake which has tiny uniform, rough scales on top of the head and a very short tail).

Scalation

Scales in 21 : 21 : 15 oblique rows, smooth. Vertebrals larger than the adjacent scales. Ventrals 206-256; anal entire; subcaudals 75-96, paired.

Natural History/ Behavior

Nocturnal; spends the day coiled up in palmyra fronds, among bushes, in thatched roofs, under tree bark or stones. An excellent climber. Common in many areas, often in houses, but, like other nocturnal snakes, rarely seen. Rear-fanged. Mild venom can paralyze small prey (lizards, mice, and small birds). Its sensitive tongue can obviously detect sleeping lizards. In North India, 3 to 10 eggs laid in August/ September. When disturbed, may coil tightly, strike repeatedly, and vibrate tail.

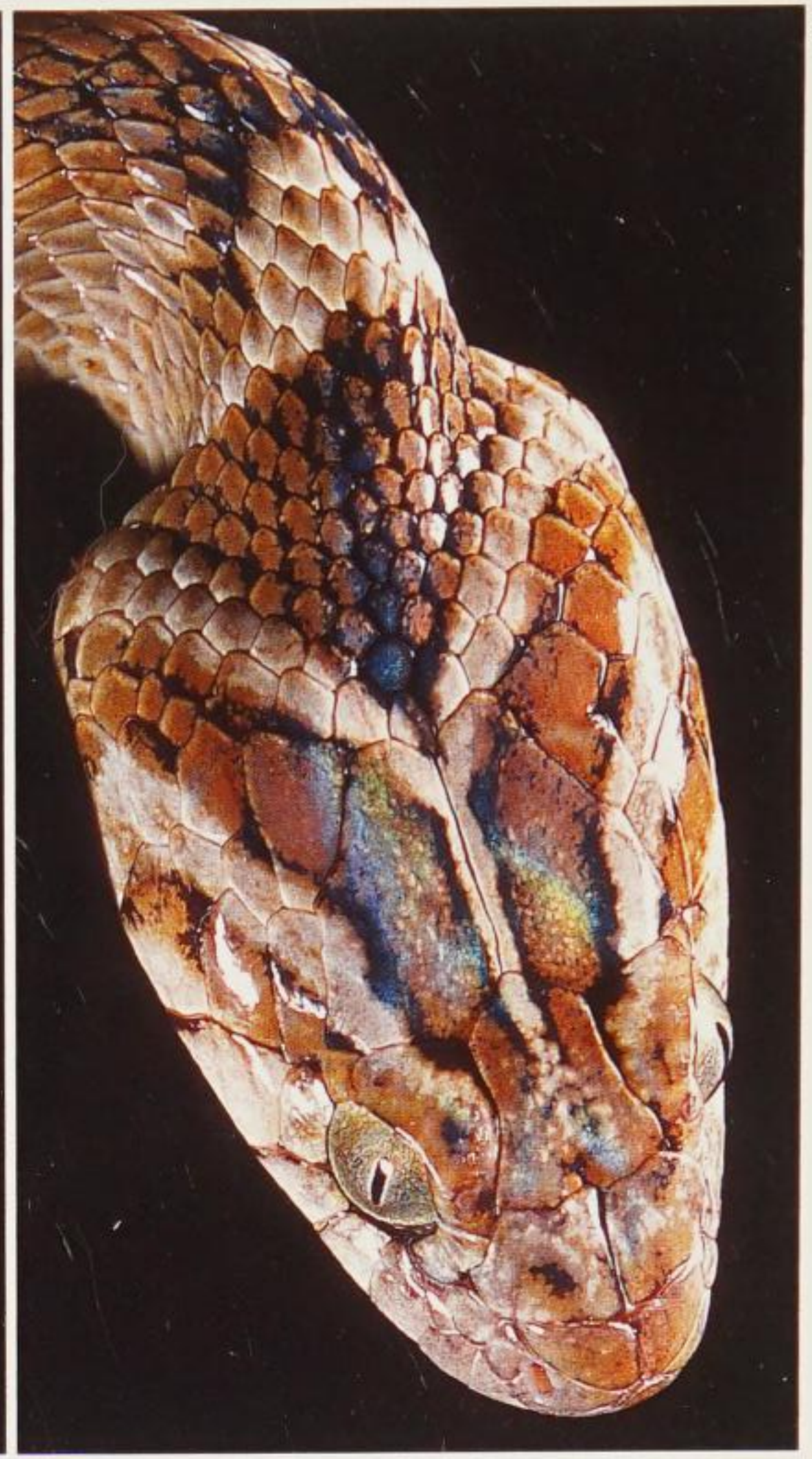
Distribution

Throughout most of South Asia, but not the Andaman & Nicobar Islands.

Look-alikes

Saw-scaled Viper.
Eastern Cat Snake.
Beddome's Cat Snake.

ADULT - Pune district, Maharashtra, India



AC

Common Cat Snake

Boiga trigonata

MILDLY VENOMOUS, COMMON

At hatching 250mm (10in); adult length 650mm (26in); maximum 1250mm (49in)

Eastern Cat Snake

Boiga gokool

MILDLY VENOMOUS, UNCOMMON

Adults 800-870mm (31-34in)
Maximum 1200mm (47in)

Description

Body long, thin and laterally flattened. Scales smooth. Head distinctly broader than neck; large eye has vertical pupil; tail long. Yellowish-brown back with a series of dark brown or black, sometimes white-edged, Y or T shaped markings on each side of a pale vertebral line. Pattern faint on hindbody and usually absent on tail. Top of head has large brown, black-edged arrow-head mark, divided along the mid-line. Large black spot behind arrow-head mark. Black stripe from eye to angle of mouth. Underside white with a series of brown or black spots on each side of the belly scales.

Scalation

Scales in 21 (rarely 19) : 21 (rarely 19) : 17 (rarely 15) oblique rows, smooth. Vertebrals distinctly larger than the adjacent scales, their posterior margins straight or concave. Ventrals 219-232; anal undivided; subcaudals 87-103, paired. Supralabials 8 (3rd to 5th touching eye); loreal 1; preoculars 1 or 2, not extending to upper surface of head; postoculars 2; temporals 2+3.

Natural History/ Behavior

Nocturnal. Arboreal; like most other cat snakes, probably prefers bushes and shrubs to tall trees. Rear-fanged. Mild venom can paralyze small prey. Known to feed on small mice.

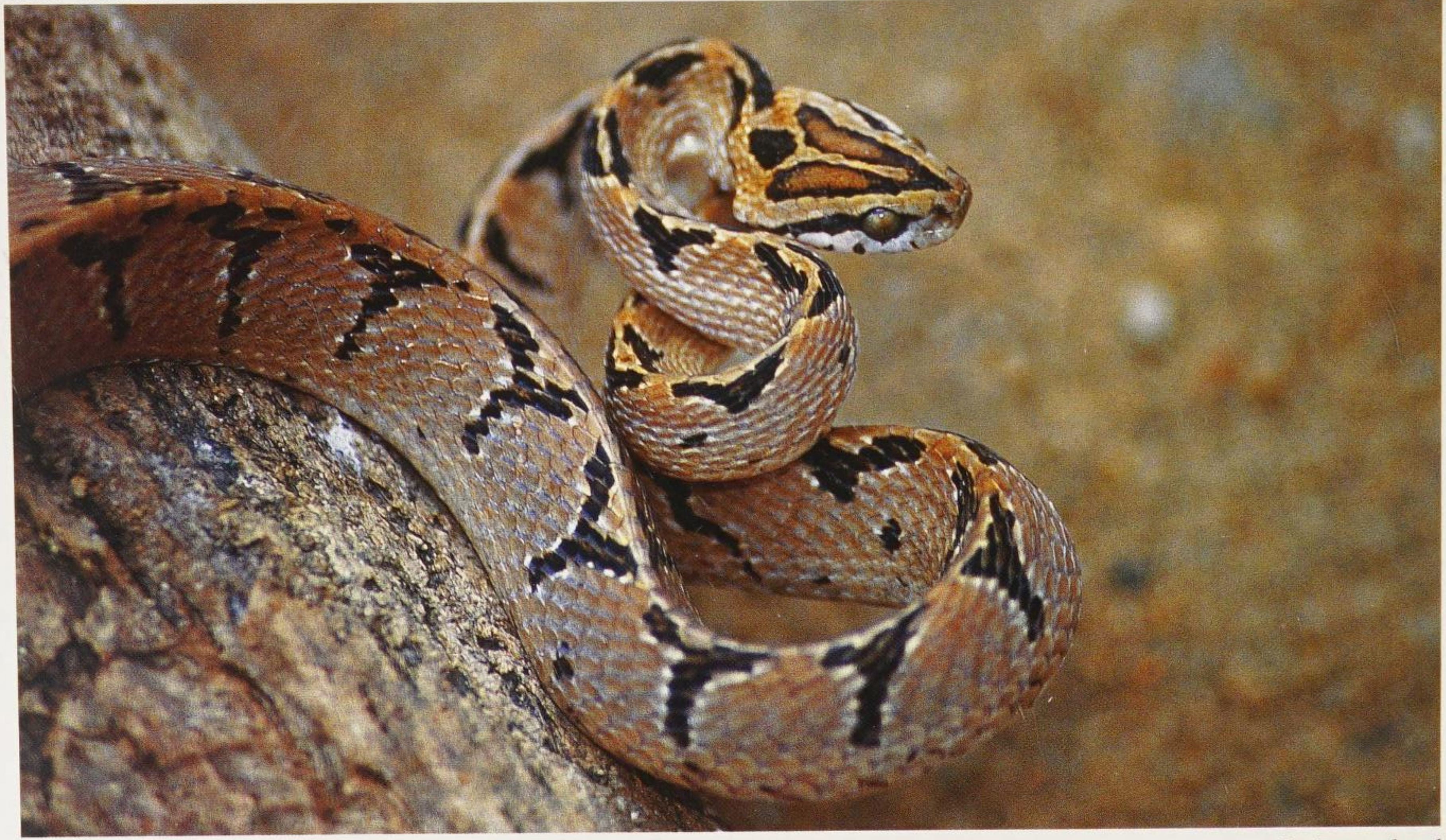
Distribution

India: the Northeast from West Bengal (Darjeeling); Assam; Manipur; Nagaland to Arunachal Pradesh (Chessa, Papum Pare district). Also Bangladesh.

Look-alikes

Common Cat Snake.
Russell's Viper.

ADULT - Kaziranga, Assam, India



M. FIROZ AHMED

Eastern Cat Snake

Boiga gokool

MILDLY VENOMOUS, UNCOMMON

Adult length 800-870mm (31-34in); maximum 1200mm (47in)

Ceylon Cat Snake

Boiga ceylonensis

MILDLY VENOMOUS, COMMON

At hatching 290-330mm (11-13in)
Maximum 1320mm (52in)

Description

Body long, thin and laterally flattened. Scales smooth. Head distinctly broader than neck; eye large, has vertical pupil; tail long. Pale grayish- or yellowish-brown back with a series of dark brown or black spots on the vertebral line. Sometimes has short, oblique backwards-pointing streaks originating from spots. Most scales peppered with darker brown. Small, scattered dark brown or black marks on top of head. Stripe from behind eye to angle of mouth, and one or three short streaks on back of head usually present. Underside white or yellow, usually with dark brown or black spots that are larger and more closely spaced along the outer edges of the belly. The Ceylon Cat Snake is visually indistinguishable from Beddome's Cat Snake. However, the former has fewer belly scales and fewer scales under the tail. Another important difference between the two is the number of teeth in the upper jaw.

Scalation/ Dentition

Scales in 19 : 19 : 15 or 13 oblique rows, smooth. Vertebral scales distinctly enlarged and hexagonal. Ventrals 214-235; anal entire; subcaudals 98-108, paired. Loreal 1; preocular 1, reaches upper surface of head; postoculars 2, rarely 3; temporals 3+3 or 3+4; supralabials 8 (4^{th} to 6^{th} touching eye). Maxillary teeth 14-20 + 2 (v/s *B. beddomei*: maxillary teeth 12 or 13 + 2).

Natural History/ Behavior

Nocturnal. Though arboreal, often seen on ground, especially along forest roads on rainy nights. Spends the day coiled up in dense bushes or tree hollows. Eats lizards, frogs and sometimes birds. Rear-fanged. Mild venom can paralyze small prey. Lays 3-10 eggs between February and April. If provoked, forms forebody into loops, strikes repeatedly; may also vibrate tail tip.

Distribution

India: the Western Ghats from Maharashtra to Kerala and Tamil Nadu. Also Sri Lanka.

Look-alikes

Other Cat Snakes.

ADULTS - Left: Kerala, India • Right: Goa, India

Left: RW • Right: AC

Ceylon Cat Snake

Boiga ceylonensis

MILDLY VENOMOUS, COMMON

At hatching 290-330mm (11-13in); maximum 1320mm (52in)

Beddome's Cat Snake

Boiga beddomei

MILDLY VENOMOUS, COMMON

Maximum 1232mm (49in)

Description

Body long, thin and laterally flattened. Scales smooth. Head much broader than neck; large eye has vertical pupil; tail long. Light grayish- to yellowish-brown above with a series of dark brown or black markings. Top of head with small, scattered dark brown or black marks. Usually has stripe from behind eye to angle of mouth. Underside white, lightly peppered with dark brown or black dots; outer edges of some belly scales have black lines. Beddome's Cat Snake is visually indistinguishable from the Ceylon Cat Snake. However, the former has more belly scales: 248-266 (the Ceylon Cat Snake has 214-235 ventrals) and more scales under the tail: 113-127 (the Ceylon Cat Snake has 98-108 subcaudals). Another important difference between the two is the number of teeth in the upper jaw, but this is hard to examine in a live snake.

Scalation/ Dentition

Scales in 19 : 19 : 15 or 13 oblique rows, smooth. Vertebral scales distinctly enlarged and hexagonal. Ventrals 248-266; anal entire; subcaudals 111-129, paired. Loreal 1; preocular 1, reaches upper surface of head; postoculars 2 (rarely 3); temporals 3+3 or 3+4; supralabials 8 (4^{th} to 6^{th} touching eye). Maxillary teeth 12 or 13 + 2 (v/s *B. ceylonensis*: maxillary teeth 14-20 + 2).

Natural History/ Behavior

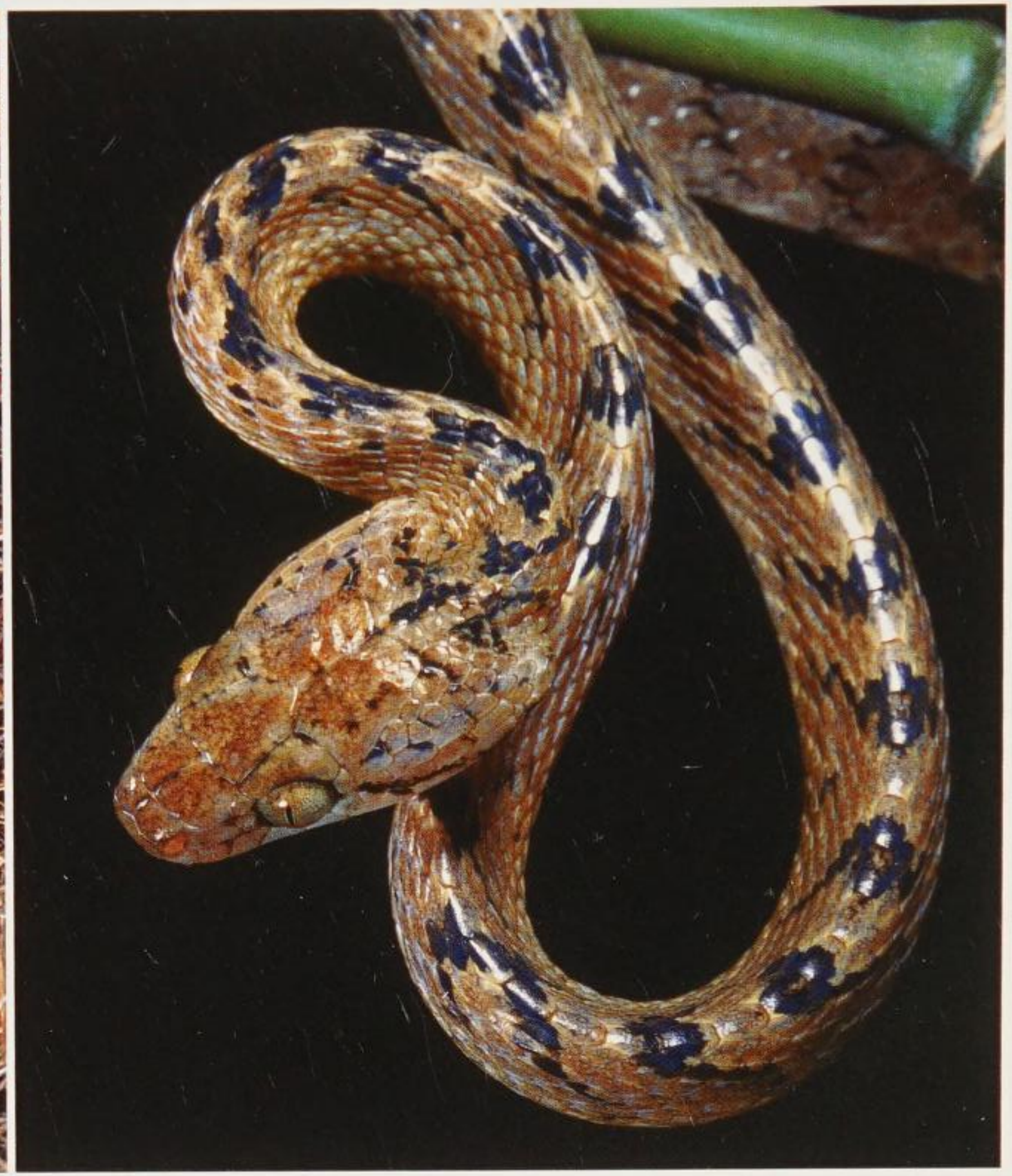
Nocturnal. Though arboreal, often seen on ground, especially along forest roads on rainy nights. Spends the day coiled up in standing, dead bamboo, tree hollows or under stones. Eats geckos and lizards. Rear-fanged. Mild venom can paralyze small prey. Lays 5-10 eggs. If provoked, forms forebody into loops and strikes repeatedly; may also vibrate tail tip.

Distribution

India: the Western Ghats from Maharashtra to Kerala and Tamil Nadu; Orissa (near hills of Ganjam district). Also Sri Lanka.

Look-alikes

Other cat snakes.



Beddome's Cat Snake

Boiga beddomei

MILDLY VENOMOUS, COMMON

Maximum 1232mm (49in)

Andaman Cat Snake

Boiga andamanensis

MILDLY VENOMOUS, COMMON

Maximum 1486mm (59in)

Description

Body long, thin and laterally flattened. Scales smooth. Head distinctly broader than neck; eye large, has vertical pupil; tail long. Pale reddish- or grayish-brown back, uniform, or with a series of dark brown vertebral spots/thin cross-lines. Dark color usually on scale edges. Markings most distinct on forebody. Top of head with faint, dark brown or black lines. Upper lip scales white, the last few with thin black back edges. Indistinct black line from behind eye to angle of mouth. Underside white or yellowish, usually with a series of black spots on each side. Juveniles and sub-adults similarly patterned, and usually dark orange above, paler below. Most scales on top of head vary in shape and size, and are distinctly larger than the upper body scales. (A possible look-alike, the Andaman Pit Viper, has small scales on upper surface of head and a much shorter body and tail).

Scalation

Scales in 21 : 21 : 15 oblique rows, smooth; vertebral scales distinctly enlarged. Ventrals 255-269, strongly angulate laterally; anal entire; subcaudals 118-133, paired. Loreal 1; preocular 1, reaches upper surface of head, often touches frontal; postoculars 2, rarely 3; temporals 3+3 or 3+4; supralabials 8 (3rd to 5th touching eye).

Natural History/ Behavior

Nocturnal and arboreal. This forest species is also frequently found in thatched roofs of houses. Feeds on lizards, rodents and bats. Rear-fanged. Mild venom can paralyze small prey. Lays eggs. If provoked, forms forebody into loops, strikes repeatedly; may also vibrate tail tip.

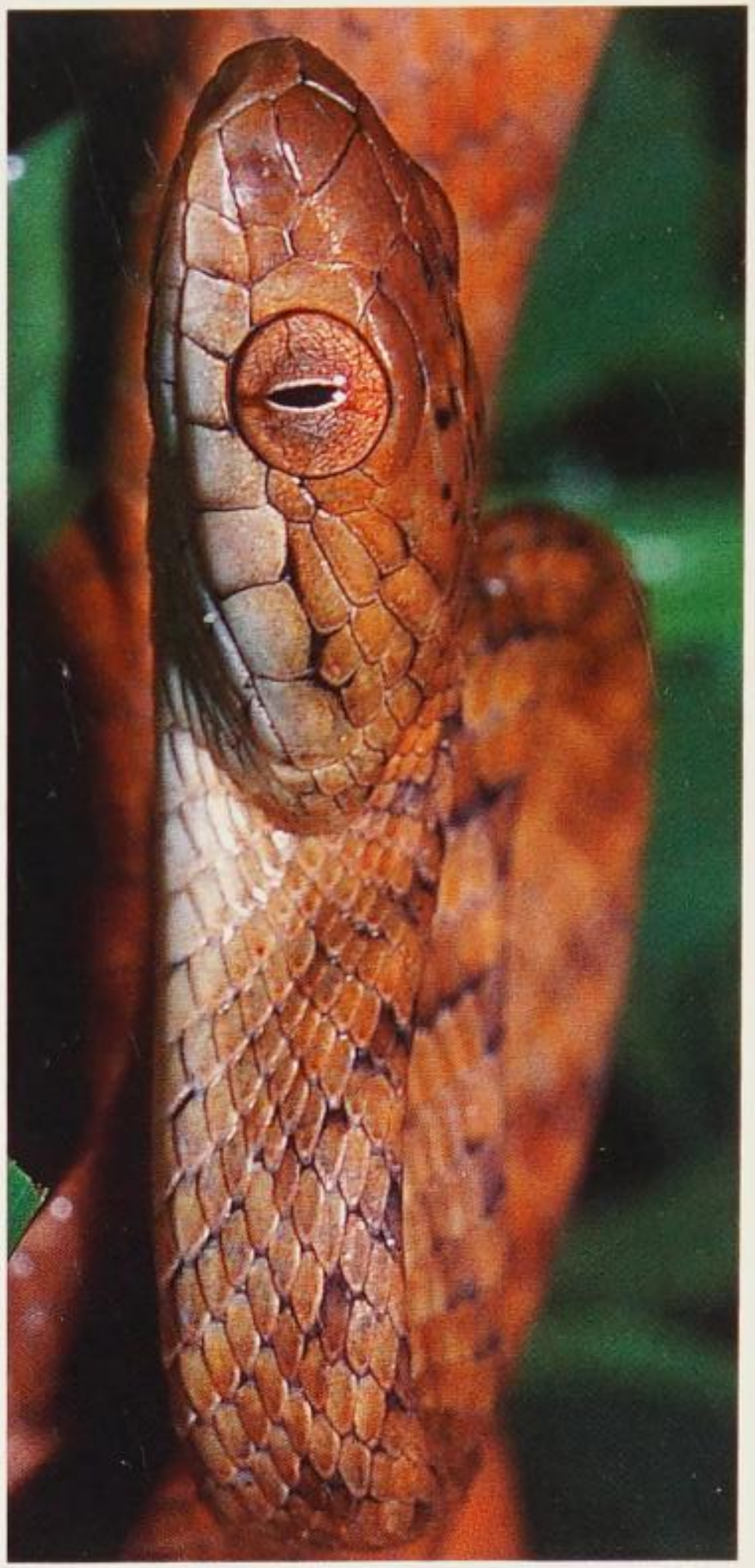
Distribution

Endemic to India: Andaman Islands.

Look-alikes

Andaman Pit Viper.

ADULT - A.N.E.T. Base, North Wandoor, South Andaman Island, India



SAMEER GHODKE

Andaman Cat Snake

Boiga andamanensis

MILDLY VENOMOUS, COMMON

Maximum 1486mm (59in)

Andaman Cat Snake

Boiga andamanensis

MILDLY VENOMOUS, COMMON

Maximum 1486mm (59in)

SAMEER GHODKE

ADULT - A.N.E.T. Base, North Wandoor, South Andaman Island, India

ADULT - A.N.E.T. Base, North Wandoor, South Andaman Island, India

SAMEER GHODKE

Andaman Cat Snake

Boiga andamanensis

MILDLY VENOMOUS, COMMON

Maximum 1486mm (59in)

Green Cat Snake

Boiga cyanea

MILDLY VENOMOUS, UNCOMMON

At hatching 350mm (14in)
Maximum 1870mm (74in)

Description

Body long and laterally flattened. Scales smooth. Head distinctly broader than neck; large eye has vertical pupil. Tail long. Various shades of green above, occasionally tinged with gray or blue; underside yellow or greenish-white, sometimes spotted with darker green. Skin between scales black; head scales and some body scales outlined with black. Most scales on top of head much larger than scales on back and of different shapes (all green pit vipers found within its range have mostly small upper head scales). Hatchlings light brown, reddish or pinkish-brown, sometimes with a green head. Color starts to change after about 9 months.

Scalation

Scales in 21 : 21 or 23 : 15 oblique rows, smooth. Vertebrals strongly enlarged. Ventrals 237-257, with a slight lateral keel; anal entire; subcaudals 124-158, paired. Preocular 1, reaches upper surface of head; postoculars 2, rarely 3; temporals 2+3; supralabials 8 or 9 (3^{rd} to 5^{th} or 4^{th} to 6^{th} touching eye).

Natural History/ Behavior

Nocturnal and usually arboreal. A forest snake. Mostly feeds on lizards, also eats snakes, frogs and small rodents. Rear-fanged. Mild venom can paralyze small prey. In Thailand, mating seen mid February to late May. Mating bites often observed in captive specimens. Lays 4-10 eggs that hatch in 80-90 days. If threatened, will hiss or posture with a wide open mouth.

Distribution

India: the Northeast from West Bengal (Darjeeling district) to Arunachal Pradesh. Found up to 2100m (6890ft). Also Bangladesh, Nepal, Myanmar, China and Southeast Asia.

Look-alikes

Green pit vipers.
Vine snakes.

ADULTS - Main picture: Captive specimen, UK • Inset: Thailand

Main Picture: MARK O'SHEA. Inset: WOLFGANG WÜSTER

Green Cat Snake

Boiga cyanea

MILDLY VENOMOUS, UNCOMMON

At hatching 350mm (14in); maximum 1870mm (74in)

Many-banded Cat Snake

Boiga multifasciata

MILDLY VENOMOUS, UNCOMMON

Maximum 1160mm (46in)

Description

Body long, thin, and laterally flattened. Scales smooth. Head distinctly broader than neck; large eye has vertical pupil; tail long. Grayish- to reddish-brown back peppered with black, and additional thin, black (sometimes oblique) cross-lines, or forward-pointing V shaped marks – the angle of which often contains a white spot. Top of head has two black lines; another on neck; black streak behind eye. Lip scales and throat yellow in all color forms. Underside off-white or gray, heavily spotted with black.

Scalation

Scales in 21 or 19 : 21 or 19 : 15 oblique rows, smooth. Vertebral scales slightly enlarged. Ventrals 214-251; subcaudals 96-118, paired. Supralabials 8 or 9 (3rd to 5th touching eye); preocular 1 or 2, reaches upper surface of head; temporals 1+2 or 2+3.

Natural History/ Behavior

Nocturnal. Mainly arboreal; found on bushes and shrubs in forested areas. Probably eats birds, small mammals, and lizards.

Distribution

India: Jammu & Kashmir (Udhampur); western Himalayas – Uttaranchal (Subathu, Mussoorie, Nainital, Muktesar, Pauri, Dehra Dun district); eastern Himalayas – northwestern West Bengal (Darjeeling district) and Sikkim. Also Nepal. Has been recorded between 610m (2000ft) and 2130m (6990ft).

Look-alikes

Forsten's Cat Snake.

ADULT - Nepal

FRANK TILLACK

Many-banded Cat Snake

Boiga multifasciata

MILDLY VENOMOUS, UNCOMMON

Maximum 1160mm (46in)

Many-banded Cat Snake

Boiga multifasciata

MILDLY VENOMOUS, UNCOMMON

Maximum 1160mm (46in)

FRANK TILLACK

ADULT - Nepal

FRANK TILLACK

Many-banded Cat Snake

Boiga multifasciata

MILDLY VENOMOUS, UNCOMMON

Maximum 1160mm (46in)

Eyed Cat Snake

Boiga ocellata

MILDLY VENOMOUS, UNCOMMON

Adults 1300mm (51in)
Maximum 1700mm (67in)

Description (Indian specimens)
Body long, thin, and laterally flattened. Scales smooth. Blunt head distinctly broader than neck; large eye has vertical pupil; tail long. Head yellowish-brown, usually with two short, bold, parallel black lines that run from neck to upper back. Thick black line from eye to angle of mouth. Lip scales white. Neck and part of back also yellowish-brown with several broad black or dark brown oblique cross-lines or V shaped marks. Remaining (major) part of back and upper surface of tail grayish-brown with indistinct light and dark brown cross-lines. Outer edges of belly scales have dark-edged pale brown or yellowish square markings that are visible on the lower sides of body. Lower surface yellowish- or grayish-brown, sometimes peppered with small dark brown spots.

Scalation
Scales in 23 : 23 : 15 oblique rows, smooth. Vertebral scales distinctly enlarged. Ventrals 247-270; anal entire; subcaudals 116-129, paired. Loreal 1; preocular 1, reaches upper surface of head but does not touch frontal; postoculars 2; anterior temporals 2; supralabials 8 (3rd to 5th touching eye).

Natural History/ Behavior
Nocturnal. Mainly arboreal; found on bushes and shrubs in plains and also hill forests. Eats birds and their eggs. Rear-fanged. Venom can paralyze small prey. Lays eggs.

Distribution

India: northeastern India from West Bengal (Jalpaiguri) through Assam to eastern Arunachal Pradesh (Chessa; Miao). Also Myanmar, Bangladesh and much of Southeast Asia (Malaysia, Vietnam, Cambodia, Thailand). Found up to 1780m (5840ft).

Look-alikes
Other cat snakes.

ADULT - Thailand

WOLFGANG WÜSTER

Eyed Cat Snake

Boiga ocellata

MILDLY VENOMOUS, UNCOMMON

Adults 1300mm (51in); maximum 1700mm (67in)

Forsten's Cat Snake

Boiga forsteni

MILDLY VENOMOUS, COMMON

Maximum 2313mm (91in)

Description

Body long and laterally flattened. Scales smooth. Head distinctly broader than neck, large eye has vertical pupil. Two main color forms. In each form, the body pattern varies considerably: (i) nearly uniform reddish-brown back with dull yellow markings; (ii) forebody with angular grayish-brown, brown or black blotches or bands that are interspersed with white patches. Hindbody has checkered pattern of same colors. Overall coloration can be very pale to very dark. In all color forms, top of head has a dark mid-stripe, bounded on the neck by two additional marks. There is also a stripe from each eye to behind mouth. White/pale lip scales separated by dark lines. Plain-colored snakes have a whitish underside; strongly-marked ones have belly scales heavily spotted with brown or black.

Scalation

Scales in 25 or 27 : 27, 29 or 31 : 17 or 15 oblique rows, smooth. Vertebrals feebly or strongly enlarged. Ventrals 254-273 with distinct lateral keel; anal entire; subcaudals 102-119 (131), paired. Preocular 1, touching top of head; postoculars 2; temporals 3+3 or 3+4; supralabials 8-11 (3rd to 5th or 4th to 6th touching eye).

Natural History/ Behavior

Nocturnal. Lives in tree hollows, abandoned nests, and tangles of leaves on branches. Our largest cat snake. Feeds on lizards, birds, even domestic chickens, bird eggs, bats, and other small mammals. Sometimes eats snakes as well. Lays 5-10 eggs in April-May. When alarmed, inflates neck, forms forebody into coils, hisses, and vibrates tail.

Distribution

India: the Western Ghats from Gujarat to Kerala; peninsular India – the Ganges valley (Orcha, Faizabad, Gorakhpur, Balrampur, Baraich, Purnea, Manbhum); Orissa (Berhampur); West Bengal (Sijna); eastern Himalayas (Darjeeling district); western Himalayas (Nainital, Dehra Dun, Pauri districts). Found in both plains and hills. Also Nepal and Sri Lanka.

Look-alikes

Other cat snakes.
Checkered Keelback.

KEDAR BHIDE

Forsten's Cat Snake

Boiga forsteni

MILDLY VENOMOUS, COMMON

Maximum 2313mm (91in)

Forsten's Cat Snake

Boiga forsteni

MILDLY VENOMOUS, COMMON

Maximum 2313mm (91in)

AMIT CHAVAN

ADULT - Borivali National Park (S.G.N.P.), Mumbai, Maharashtra, India

ADULT - Lonavla, Pune district, Maharashtra, India

AC

Forsten's Cat Snake

Boiga forsteni

MILDLY VENOMOUS, COMMON

Maximum 2313mm (91in)

Nicobar Cat Snake

Boiga wallachi

MILDLY VENOMOUS, COMMON

Maximum 1505mm (59in)

Description

Body elongate, laterally flattened. Scales smooth. Head distinctly broader than neck; large eye has vertical pupil; tail long. Cinnamon yellowish-brown back; each scale smudged with darker brown on the edge or middle. Snakes with closely spaced markings are more brown than yellow; those with more scattered markings appear yellow, mottled with brown. Top of head dark brown, infused with dull yellow. Upper lip scales yellow, uniform, or pale brown above and yellow below, or last few edged with indistinct black lines. Usually no black line behind eye; sometimes has a thin dark streak along top edges of upper lip scales. Underside yellow, with dark brown blotches. A juvenile from Great Nicobar was uniform yellowish-brown above, paler below.

Scalation

Scales in 31, 29 or 27 : 21, 19 or 15 (aberrant) : 17, 15 or 13 oblique rows, smooth. Vertebral scales distinctly enlarged. Ventrals 228-235, strongly angulate laterally; anal entire; subcaudals 77-107, paired. Loreal 1; preoculars 1 or 2 (arguably 1+1 presubocular); postoculars 2; anterior temporals 2 or 3, posterior temporals 1-3; supralabials 8 (3^{rd} to 5^{th} touching eye).

Natural History/ Behavior

Nocturnal. Described in 1998 by Indraneil Das who found two specimens "along infrequently used forest tracts within undisturbed tropical moist forests." Two others were collected "from the ground at night." Nine were seen on the forest floor in a single night. Also found near freshwater bodies. Remarkably, none have been found on trees or bushes. Many have missing tail tips, usually seen in terrestrial snakes. The Nicobarese claim that it raids chicken sheds for eggs; remains of bird eggs were found in the stomach of one specimen. Another swallowed 5-6 frogs by the side of a forest pool. Rear-fanged. A man bitten on the leg by this species claimed that the swelling lasted for two days. Like other cat snakes, probably lays eggs.

Distribution

Endemic to India: Little and Great Nicobar Islands.

Look-alikes

None in range.

ADULT - Shompen Hut Complex, Great Nicobar Island, India

SAMEER GHODKE

Nicobar Cat Snake

Boiga wallachi

MILDLY VENOMOUS, COMMON

Maximum 1505mm (59in)

Afro-Asian Sand Snake — *Psammophis schokari*

MILDLY VENOMOUS, UNCOMMON — Maximum 1280mm (50in)

Description

Long, slender-bodied, smooth-scaled. Outer edges of belly scales rounded (not sharply upturned/not keeled/ not angulate laterally). Head elongate, tapers towards front; slightly broader than neck; distinct ridge between top and side of head; large eye has round pupil. Tail long. Usually cream, pale brown or grayish back with four broad, ribbon-like, dark brown stripes along entire length of body and tail. Stripes dotted/lined on both sides with black. Top of head has even, dark brown markings and a stripe running from snout tip along entire side of head. Lip scales white, spotted with black. Belly scales and those under tail yellowish with thin black line along outer edges; mid-section sometimes finely speckled with dark brown or with paired spots of the same color. Middle of underside may even be bluish-gray, reddish or blackish. Variations include: (i) Cream, pale brown or grayish back, without broad dark brown stripes – only their dotted, black outlines remain. (ii) Uniform cream, pale brown or grayish back; underside yellowish. Juveniles resemble adults.

Scalation/ Dentition (after Smith)

Scales in 15, 16 or 17 : 17 : 11, 15 or 13 rows, smooth. Ventrals 164-187, rounded; anal divided or undivided; subcaudals 118-134, paired. Nasal completely divided. Supralabials 8 (4^{th} and 5^{th} touching eye) or 9 (5^{th} and 6^{th} touching eye); elongate loreal; preocular 1, touches frontal; postoculars 2, rarely 3; temporals 2+2 or 2+3. Frontal long and narrow, distinctly longer than its distance from end of snout, anterior end twice as broad as middle. To positively identify this species, the maxillary teeth must be examined. Maxillary teeth 13 or 14; two in the middle, very strongly enlarged; last two enlarged, grooved and pointed backward.

Natural History/ Behavior

Mainly diurnal. Climbs well. Found in dry habitats like sandy deserts with scant vegetation and even on beaches (not in India). Has been found hiding under rocks, at the base of small bushes like *Euphorbia*, or seen basking on low bushes in the morning. A captive specimen was seen excavating a shallow hiding place by moving loose sand. Another, that was lightly colored when caught, became darker after being kept for three days on a dark verandah. Color change in snakes seems to be rare. Feeds on lizards, geckos and occasionally small birds. Has grooved rear fangs. Venom quickly immobilizes prey. In humans, the bite can cause pain, swelling and bleeding but no serious symptoms have been reported. Lays 4-10 eggs in March-July.

ADULT - Muscat, Oman

A.S. GARDNER

Afro-Asian Sand Snake

Psammophis schokari

MILDLY VENOMOUS, UNCOMMON

Maximum 1280mm (50in)

Afro-Asian Sand Snake

Psammophis schokari

MILDLY VENOMOUS, UNCOMMON

Maximum 1280mm (50in)

Distribution

India: Rajasthan (Jodhpur), possibly Gujarat (Kutch) – a single record from the year 1872 needs confirmation. Also Pakistan, the Middle East and most of North Africa. Found from sea level up to 1678m (5535ft).

Look-alikes

Other sand snakes.
Bronzebacks.

ADULT - Muscat, Oman

A.S. GARDNER

Afro-Asian Sand Snake

Psammophis schokari

MILDLY VENOMOUS, UNCOMMON

Maximum 1280mm (50in)

Condanarus Sand Snake — *Psammophis condanarus*

MILDLY VENOMOUS, UNCOMMON — Maximum 1075 mm (42in)

Description

Long, slender, smooth-scaled. Outer edges of belly scales rounded (not sharply angled upward/not keeled/not angulate laterally). Head elongate, tapers towards front; slightly broader than neck; distinct ridge between top and side of head; large eye has round pupil; tail long. Pale brown or light olive, usually with five black-edged, dark brown stripes that start at head and run along length of body. Underside yellowish-white; outer edge of each belly scale edged with black. Snakes from eastern Maharashtra have three broad stripes that begin after neck and a broad streak on side of head, from tip of snout to behind eye. Often mistaken for a Bronzeback Tree Snake (which has keeled belly scales).

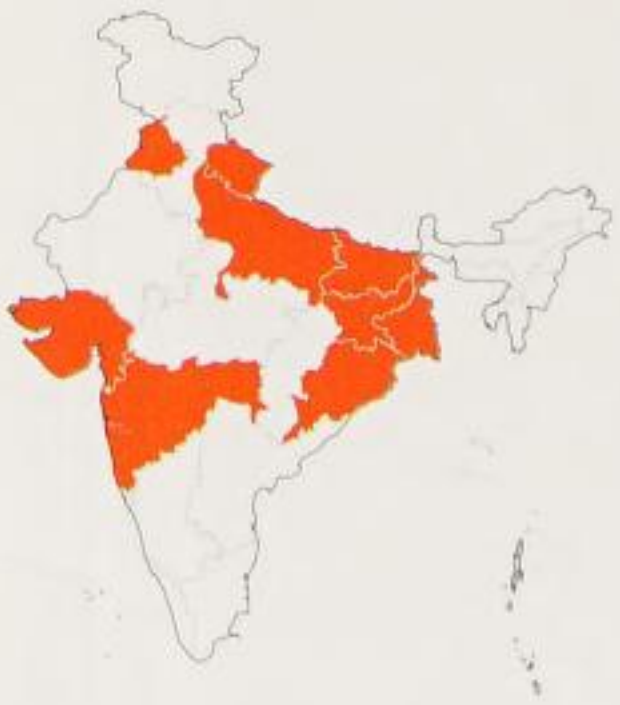
Scalation/ Dentition (after Smith)

Scales in 17 : 17 : 15 or 13 rows, smooth. Ventrals 165-179, rounded; anal divided; subcaudals: males 85-93; females 75-85, paired. Supralabials 8 (4th and 5th touching eye); elongate loreal; preocular 1; postoculars 2; temporals 1+2. Frontal distinctly longer than its distance from end of snout; anterior end not twice as broad as middle. Maxillary teeth 12 or 13; middle 2 enlarged with distinct interval in front, but not always behind; last two enlarged, grooved and pointed backward.

Natural History/ Behavior

Diurnal. The common name is misleading as this species is never actually found in sand. A good climber, often seen on trees. Inhabits stony areas, arid deciduous scrub forest and the foothills of the western Himalayas. Eats frogs, lizards, skinks, small rodents and sometimes snakes. Lays eggs.

Distribution



India: Uttaranchal (Dehra Dun), Punjab, Gujarat, Maharashtra (Pune, Jalna, Buldhana), Uttar Pradesh, Bihar, Orissa, West Bengal (to 86° E longitude). A lone record of this snake recovered from the stomach of a Short-toed Eagle in Bandipur National Park, Karnataka needs confirmation. Also found in Pakistan and Nepal. Found up to about 1830m (6000ft).

Look-alikes

Bronzebacks.
Sand snakes.

ADULT - Maharashtra, India

Condanarus Sand Snake

Psammophis condanarus

MILDLY VENOMOUS, UNCOMMON

Maximum 1075 mm (42in)

Stout Sand Snake

Psammophis longifrons

MILDLY VENOMOUS, RARE

Maximum 1230 (48in)

Description

Long, stout-bodied, smooth-scaled. Outer edges of belly scales rounded (not sharply upturned/not keeled/not angulate laterally). Head elongate, tapers towards front; slightly broader than neck; distinct ridge between top and side of head; large eye has round pupil. Tail long. Predominantly brown back; uppermost body scales (and sometimes head scales) black-edged. Underside white, yellowish-white or gray. A juvenile seen in June was uniform pale brown above, except for scales of the vertebral row which were black-edged and formed a narrow chain along the entire back. (Look-alike bronzebacks all have belly scales that are angulate laterally).

Scalation/ Dentition (after Smith)

Scales in 17 : 17 : 13 rows, smooth. Ventrals 166-175, rounded; anal divided; subcaudals 79-93, paired. Supralabials 8 (4th and 5th touching eye); temporals 2+2 or 2+3; frontal long and narrow, not longer than its distance from end of snout, not touching preocular. Maxillary teeth 12 or 13; middle 2 very strongly enlarged with distinct interval in front and behind; last two maxillary teeth enlarged, grooved and pointed backward.

Natural History/ Behavior

Poorly known. Terrestrial and arboreal. The common name is misleading as this species is never actually found in sand. Probably eats lizards and geckos. Not inclined to bite when handled.

Distribution

India: Maharashtra and Gujarat north of Mumbai (Thane and Damanganga districts, Nagpur, Valsad/Bulsar and Panch Mahals). Known only from a few specimens. A record from Andhra Pradesh (Cudappah Hills) is probably incorrect.

Look-alikes

Bronzebacks.
Sand snakes.
Banded Racer.

ADULT - Maharashtra, India

AC

Stout Sand Snake

Psammophis longifrons

MILDLY VENOMOUS, RARE

Maximum 1230 (48in)

Leith's Sand Snake — *Psammophis leithii*

MILDLY VENOMOUS, RARE — Maximum 895 mm (35in)

Description

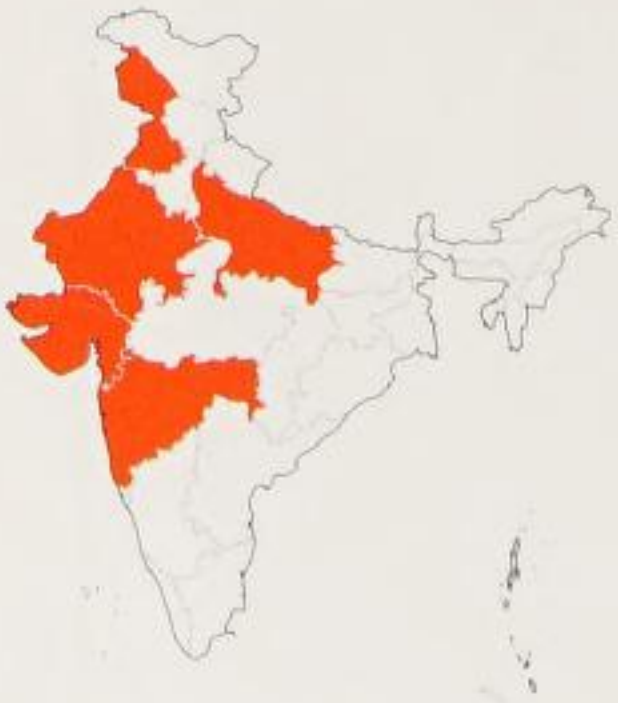
Long, slender-bodied, smooth-scaled. Outer edges of belly scales rounded (not sharply upturned/not keeled/not angulate laterally). Head elongate, tapers towards front; slightly broader than neck; distinct ridge between top and side of head; large eye has round pupil; tail long. Pale yellowish-brown back, with four dark brown stripes that begin on head and run along length of body. Middle of head usually has a long, dark marking. Body stripes dotted or lined on both sides with black. Underside yellowish-white. Frequently mistaken for the Bronzeback Tree Snake (which has keeled belly scales).

Scalation/ Dentition (after Smith)

Scales in 17 : 17 : 15 or 13 rows, smooth. Ventrals rounded: males 159-175; females 170-187; anal 1; subcaudals paired: males 104-109; females 92-104. Supralabials 8 (4th and 5th touching eye); preocular 1; temporals 1+2; frontal long and narrow, abruptly broader in front. Maxillary teeth 11 or 12; those in the middle slightly enlarged with interval before/after/before and after; last two enlarged, grooved and pointed backward.

Natural History/ Behavior

Diurnal. Terrestrial and arboreal. Found in marshes, grassland, clay or sandy desert. In Pakistan, it is found by the coast where there is plenty of scrub cover. Eats skinks and lizards; raids bird nests. Lays 4-10 eggs in March-June.



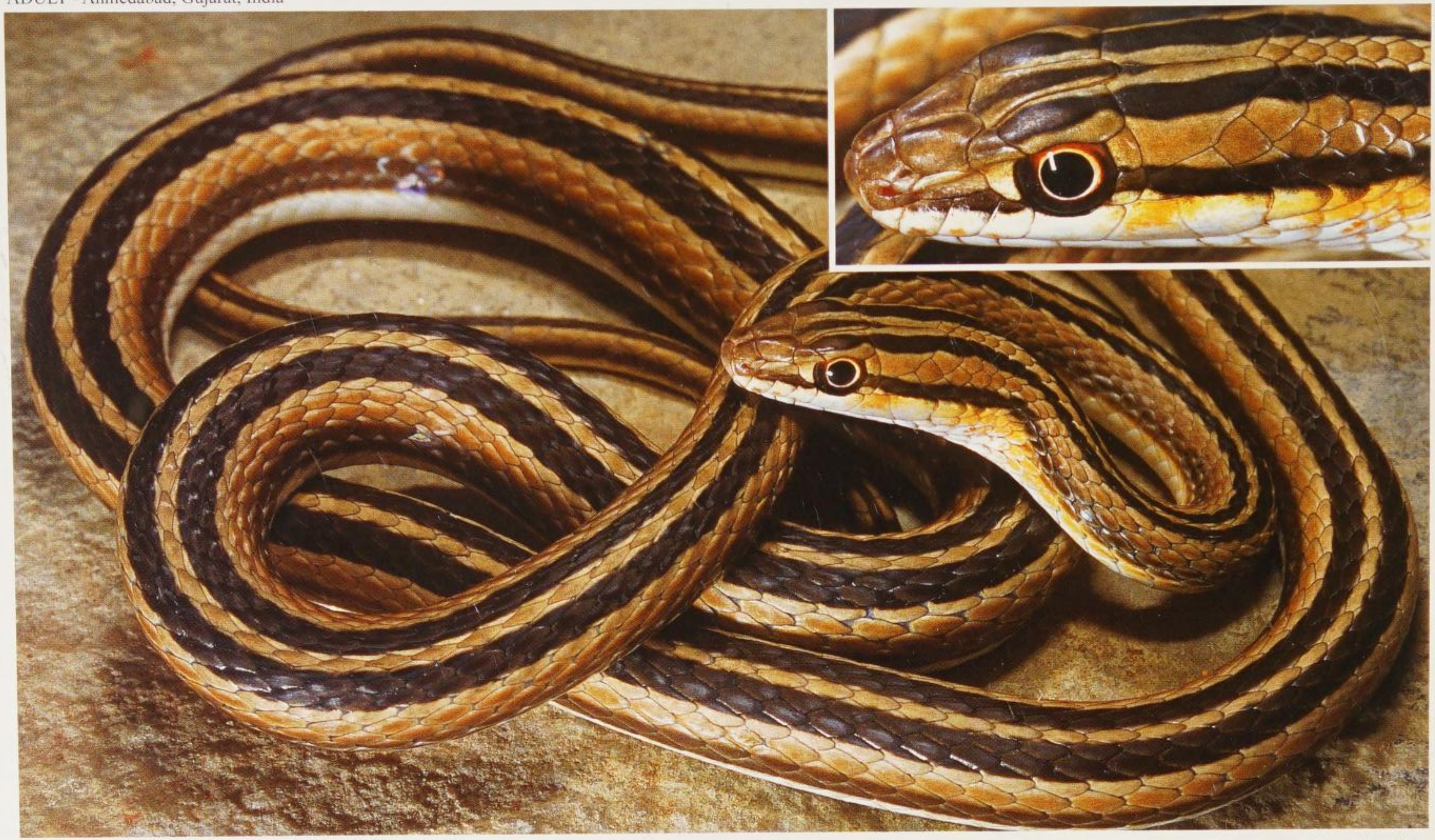
Distribution

India: Jammu & Kashmir, Punjab, Rajasthan, Uttar Pradesh, Gujarat, and Maharashtra. Also Pakistan.

Look-alikes

Bronzebacks.
Sand snakes.

ADULT - Ahmedabad, Gujarat, India



Leith's Sand Snake

Psammophis leithii

MILDLY VENOMOUS, RARE

Maximum 1075 mm (42in)

Mock Viper

Psammodynastes pulverulentus

MILDLY VENOMOUS, COMMON

At birth 150-180mm (6-7in)
Maximum 770mm (30in)

Description

Body cylindrical; scales smooth. "Viper-like" head distinctly broader than neck. Snout short, tip appears to be abruptly cut when seen from side (truncate). Large eye has vertically elliptical pupil, which at times appears round. Body color varies greatly. Females dark, males light colored. Upper scales dull (as opposed to glossy) yellowish-, reddish-, pale to dark brown, or sooty grayish-black, sometimes with small black marks or streaks that may be paired. Side of body often has three closely spaced lines or series of yellowish spots. Top of head has three or four long, dark, symmetrical lines (not easily visible in dark forms). Underside very glossy, powdered or lined with brown, pink or gray.

Scalation

Scales in 17 : 17 : 15 rows, smooth. Ventrals 144-176, rounded; anal entire; subcaudals 44-78, paired. Preocular 1 or 2; postoculars 2 to 4; temporals 2+3 rarely 2+2; supralabials usually 8 (3rd to 5th touching eye). Three pairs of genials.

Natural History/ Behavior

Active by day and night. Found in low bushes and on the ground. Occurs in plains as well as hills, where it is fairly common. Eats skinks, other lizards, frogs and small snakes. Enlarged, grooved rear teeth in upper jaw presumably help chew toxic saliva into prey. Effect of its saliva on humans is unknown. Bears 3-10 live young in July-September. A feisty snake, will quickly strike at the slightest provocation.

Distribution

India: northern Orissa, eastern Himalayas to Arunachal Pradesh. Also Nepal, Bhutan, Myanmar, China, Bangladesh, Taiwan, the Philippines and Borneo.

Look-alikes

Himalayan Pit Viper.

ADULT - Near Gandhigram, Changlang district, Arunachal Pradesh, India

Mock Viper

Psammodynastes pulverulentus

MILDLY VENOMOUS, COMMON

At birth 150-180mm (6-7in); maximum 770mm (30in)

Mock Viper

Psammodynastes pulverulentus

MILDLY VENOMOUS, COMMON

At birth 150-180mm (6-7in); maximum 770mm (30in)

Left: FRANK TILLACK • Right top and bottom: WOLFGANG GROSSMAN

ADULTS - Left: Malaysia • Right: Thailand

ADULT - Near Gandhigram, Changlang district, Arunachal Pradesh, India

Mock Viper

Psammodynastes pulverulentus

MILDLY VENOMOUS, COMMON

At birth 150-180mm (6-7in); maximum 770mm (30in)

Günther's Vine Snake

Ahaetulla dispar

MILDLY VENOMOUS, COMMON

At birth 70-90mm (3-4in)
Maximum 788mm (31in)

Description

Long, slender, smooth-scaled. Head elongate with pointed snout shorter than that of the Common Vine Snake. Eye large, transversely oval with horizontal pupil. Tail long. Two very distinct color phases: either bright green or brownish-green back; interscale skin black and white (or only black). Underside pale- or brownish-green (olive). A white or yellow line runs along outer margins of belly scales.

Scalation

Scales in 15 : 15 : 13 oblique rows, smooth. Ventrals 136-156; anals divided (rarely entire); subcaudals 78-119, paired. Supralabials 8 (5th touching eye, 4th divided into supralabial and 1 or 2 presuboculars); 1 or 2 loreals (rarely absent); temporals 2+2 or 2+3.

Natural History/ Behavior

Poorly known. A montane species. Diurnal – usually seen in open country on grass clumps, low bushes or trees, rarely on the ground. Feeds on lizards, frogs and other snakes. Rear-fanged like all vine snakes. Mild venom can paralyze small prey. Bears 4-11 live young March-July. If provoked, will open mouth and inflate neck and body to reveal interscale color. In captivity, calms down rapidly and is not as defensive or likely to bite as the Common Vine Snake.

Distribution

Endemic to India. Southern Western Ghats – Tamil Nadu (Palnis, Nilgiris, High Wavys, Anamalai Hills) to Kerala (Cardamom Hills). Recorded up to 2438m (8000ft).

Look-alikes

Bronze-headed Vine Snake.
Common Vine Snake.

Top: ADULT - Eravikulum National Park, Kerala, India. Bottom: ADULT - Periyar, Kerala, India

Top: RW • Bottom: ANITA MALHOTRA

Günther's Vine Snake

Ahaetulla dispar

MILDLY VENOMOUS, COMMON

At birth 70-90mm (3-4in); maximum 788mm (31in)

Short-nosed Vine Snake

Ahaetulla prasina

MILDLY VENOMOUS, UNCOMMON

At birth 240-490mm (9-19in)
Maximum 1970mm (78in)

Description

Long, slender, smooth-scaled. Snout tapers to a point shorter than that of the Common Vine Snake. Eye large, transversely oval with horizontal pupil. Tail long. Green, gray, yellow or pale brown back; lighter underside with a yellow or white line usually separating the two colors. Interscale skin on back visible as black and white oblique lines.

Scalation

Scales in 15 : 15 : 13 oblique rows, smooth. Ventrals 194-235; anal divided (rarely entire); subcaudals: males 157-192, females 141-172; paired. Loreals 2 or 3; preocular 1 (touches frontal); postoculars 2; temporals 2+2 or 2+3; supralabials 9 (not divided horizontally, 4th to 6th touching eye).

Natural History/ Behavior

Diurnal and mainly arboreal. Found in scrub or forested areas. Feeds mostly on lizards, occasionally birds and frogs. Rear-fanged like all vine snakes, using mild venom and a surprisingly strong grip to subdue prey. Females bear 4-10 live young May-June.

Distribution

India: from West Bengal (Jalpaiguri district) and Sikkim (the eastern Himalayas) to Arunachal Pradesh up to 2100m (6890ft). Also Bangladesh and much of Southeast Asia.

Look-alikes

Common Vine Snake.

ADULT - Sabah, Malaysia

RW

Short-nosed Vine Snake *Ahaetulla prasina*

MILDLY VENOMOUS, COMMON At birth 240-490mm (9-19in) ; maximum 1970mm (78in)

Short-nosed Vine Snake

Ahaetulla prasina

MILDLY VENOMOUS, COMMON

At birth 240-490mm (9-19in) ; maximum 1970mm (78in)

WOLFGANG WÜSTER

ADULT - Thailand

ADULT - Thailand

JENNIFER DALTRY

Short-nosed Vine Snake *Ahaetulla prasina*

MILDLY VENOMOUS, COMMON At birth 240-490mm (9-19in) ; maximum 1970mm (78in)

Common Vine Snake

Ahaetulla nasuta

MILDLY VENOMOUS, COMMON

At birth 200-425mm (8-17in)
Adults 1000mm (39in)
Maximum 2000mm (79in)

Description

Long, slender, smooth-scaled. Extremely pointed head has extended snout; large eye has horizontal pupil. Tail long. Uniform parrot-green (rarely yellow, brown or pink) back, often with a thin white or yellow line separating upper body scales from belly scales. Underside usually light green or yellow (rarely gray, pink or rose-red). The snout tip tapers to a point. When viewed from above, it usually consists of a single scale which is grooved in the middle; rarely there are a few tiny scales at base of the scale. (In the Brown Vine Snake the snout tip is slightly swollen, has no groove in the middle and is covered by several small scales).

Scalation

Scales in 15 : 15 : 13 oblique rows, smooth. Ventrals 166-207; anal divided; subcaudals: males 156-180, females 135-152; paired.

Natural History/ Behavior

Diurnal, usually seen on low bushes or trees, rarely on the ground. Feeds mainly on lizards, frogs, small birds and mice. One was seen eating tadpoles, another swallowing a shieldtail snake. In Sri Lanka, seen catching and eating fish. Rear-fanged. Mild venom can paralyze small prey. Up to 23 young are born in March-December. The female simply drops the babies wherever she is. If provoked, will open mouth wide and inflate neck and body to reveal black and white interscale color.

Distribution

Throughout India (except in the Northwest and much of the Gangetic basin). Known from Bengal (Jalpaiguri); extent of distribution in the Northeast uncertain. Also Bangladesh, Sri Lanka, and Nepal. Recorded up to 1000m (3280ft).

Look-alikes

Other vine snakes.
Green pit vipers.
Green Keelback.

ADULTS - Left: Nasrapur, Maharashtra, India • Inset and Right: Castle Rock, Karnataka, India

Common Vine Snake

Ahaetulla nasuta

MILDLY VENOMOUS, COMMON

At birth 200-425mm (8-17in); adult length 1000mm (39in); maximum 2000mm (79in)

Common Vine Snake

Ahaetulla nasuta variety *isabellinus*

MILDLY VENOMOUS, COMMON

At birth 200-425mm (8-17in); adult length 1000mm (39in); maximum 2000mm (79in)

ADULT - Found on truck, Pune, India (possibly from southern India)

ADULTS - Top: *Ahaetulla nasuta,* Thailand • Bottom: *Ahaetulla nasuta* variety *isabellinus,* found on truck, Pune (possibly from southern India), India

Top: WOLFGANG WÜSTER • Bottom: AC

Common Vine Snake

Ahaetulla nasuta

MILDLY VENOMOUS, COMMON

At birth 200-425mm (8-17in); adult length 1000mm (39in); maximum 2000mm (79in)

Brown Vine Snake

Ahaetulla pulverulenta

MILDLY VENOMOUS, UNCOMMON

Maximum 1730mm (68in)

Description

Long, slender, smooth-scaled. Extremely pointed head with extended nose tip. Thin, dark brown four-sided (rhomboidal) mark on top of head; brown stripe passing through eye on side of head. Eye large, transversely oval with horizontal pupil. Gray or brown, with darker brown spots and blackish-brown oblique or cross markings. Underside gray or brown. The snout tip of the Brown Vine Snake is slightly swollen, has no groove in the middle and is covered by several small scales. (In the Green Vine Snake it is tapered and when viewed from above consists of a single scale which is grooved in the middle; there are rarely a few tiny scales at its base). Two other look-alikes – the Bronze-headed Vine Snake (usually green, rarely olive-brown) and Günther's Vine Snake, have fewer belly and "under tail" scales (ventrals and subcaudals). None of the look-alikes have a rhomboidal head mark, or a stripe passing through the eye.

Scalation

Scales in 15 : 15 : 13 oblique rows, smooth; anal divided (rarely entire). India: ventrals 182-203; subcaudals 169-208, paired. Sri Lanka: ventrals 179-193; subcaudals 151-178, paired.

Natural History/ Behavior

Diurnal and mainly arboreal. Found in plains and hills. Feeds mostly on lizards, but also on birds and frogs. Rear-fanged like all vine snakes, using mild venom and a surprisingly strong grip to subdue prey. Females bear 6-12 live young.

Distribution

India: the Western Ghats from Gujarat to Kerala; Tamil Nadu – Alagarkoil Hills near Madurai, up to 915m (3000ft). Also Sri Lanka.

Look-alikes

Common Vine Snake (brown forms).
Bronze-headed Vine Snake.
Günther's Vine Snake.

ADULT - Rescued specimen, Mumbai, India

KEDAR BHIDE

Brown Vine Snake

Ahaetulla pulverulenta

MILDLY VENOMOUS, UNCOMMON

Maximum 1730mm (68in)

Plumbeous Smooth-scaled Water Snake *Enhydris plumbea*

MILDLY VENOMOUS, UNCOMMON

At birth 80-130mm (3-5in)
Maximum 560mm (22in)

Description

Stout-bodied; smooth-scaled. Blunt head not, or very slightly wider than neck; snout broadly rounded; small eye has vertical pupil. Tail short. Dark lead-gray, olive, greenish or yellow back; scales with blackish-gray margins. Some have small black spots on the middle of back. Lowest three scale rows on each side yellow with prominent blackish-gray edges (uniform yellow in young snakes). Well-developed belly scales whitish or yellow, often with dark spots or a black mid-belly stripe; scales beneath tail similarly colored with a black line in the middle. Our description includes all known color forms. The only two specimens recorded from the Nicobars had a uniform gray back and white underside. More sightings are needed to confirm that this is the only color form found in the Nicobar Islands.

Scalation

Scales in 19 rows, smooth; ventrals 112-139; anal divided; subcaudals 22-45, paired. Supralabials 8 (4^{th} or 4^{th} and 5^{th} touching eye); preocular 1; postoculars 2; temporals 1+2. Nasal scales in contact anteriorly despite single broad, triangular internasal.

Natural History/ Behavior

Active by day and night. Found near paddy fields or in ponds and streams. Eats fish, frogs, and crustaceans. Gives birth to 6-30 young that resemble adults. An active snake; bites readily in defense.

Distribution

India: recently recorded from the Great Nicobar Island (Galathea River bank). Also most of Southeast Asia.

Look-alikes

Glossy Marsh Snake.

Plumbeous Smooth-scaled Water Snake

Enhydris plumbea

MILDLY VENOMOUS, UNCOMMON

At birth 80-130mm (3-5in); maximum 560mm (22in)

Common Smooth-scaled Water Snake — *Enhydris enhydris*

MILDLY VENOMOUS, COMMON

At birth 140mm (6in)
Maximum 972mm (38in)

Description

Stout-bodied; smooth-scaled. Tail abruptly tapered. Olive, brown or gray back, either with a broad stripe on back that runs from head to tail tip, or three series of indistinct dark spots (one on back, one on each side). Belly scales yellow or white with brown outer edges on each side and usually with brown central spots. Young have three light lines on back. (The look-alike Olive Keelback has keeled scales and a uniform, yellow, orange or white underside).

Scalation

Scales in 21, rarely 19 or 23 rows at mid-body, smooth. Ventrals 134-177; anal divided; subcaudals 46-79, paired. Single internasal touches loreal; supralabials 8 (4th touching eye).

Natural History/ Behavior

Diurnal. Inhabits fresh or brackish water bodies. Mostly eats fish, but also tadpoles, frogs, and lizards. Has slightly enlarged, grooved teeth in back of upper jaw and mildly toxic saliva. Does not usually bite when handled, but a bite caused swelling and the affected part throbbed for about an hour. Mating seen in October-November; gravid females collected in March. Bears 4-18 live young.

Distribution

India: coastal Andhra Pradesh (Vishakhapatnam), eastern Uttar Pradesh, Bihar, Orissa, West Bengal as far north as the Himalayan foothills in Assam. Also Bangladesh, Nepal and Myanmar.

Look-alikes

Olive Keelback.
Glossy Marsh Snake.

ADULT - Thailand

WOLFGANG WÜSTER

Common Smooth-scaled Water Snake

Enhydris enhydris

MILDLY VENOMOUS, COMMON

At birth 140mm (6in); maximum 972mm (38in)

Siebold's Smooth-scaled Water Snake *Enhydris sieboldii*

MILDLY VENOMOUS, RARE Maximum 780mm (31in)

Description

Stout-bodied; smooth-scaled. Head slightly broader than neck; snout blunt; small eyes and nostrils placed high on head. Vertically elliptical pupil and crescentic nostrils (only visible under magnification). Pale brown or off-white back with very broad, closely-spaced, dark brown or dull olive green, squarish, black-edged marks that are much broader than the pale cross-lines. Markings on back (which often join along midline) alternate with a series of smaller spots on each side of body. On some specimens the markings are so closely spaced that the snakes are dark olive green or brown with narrow, pale brown cross-lines. Top of head has three bold, dark brown stripes that converge or join between the eyes. Underside white with black checks (more closely marked on tail) or pale brown, mottled with dark green.

Scalation

Scales in 27 or 29, rarely 31 or 33 rows at midbody, smooth. Ventrals 143-158; anal divided; subcaudals 43-56, paired. Internasals 2; supralabials 7 or 8 (4th touching eye); loreal 1; preocular 1 or 2; postoculars 2; temporals 1+2 (or absent).

Natural History/ Behavior

Active in the early morning. Found in or close to rivers and water bodies. Burrows deep into mud. Eats frogs, toads and fish. Has slightly enlarged, grooved teeth in back of upper jaw and mildly toxic saliva. Bears up to 7 live young around July. Young resemble adults. Will strike fiercely if provoked.

Distribution

India: Ganga, Yamuna, Brahmaputra rivers and their tributaries. Recorded from Delhi, Uttar Pradesh (Agra, Faizabad), Uttaranchal (Corbett National Park), Madhya Pradesh (Sagar), Bihar (Patna, Purnea, Champaran), West Bengal (Pusa) and Nagaland (Samaguting). Old records from Mumbai and coastal Kerala need confirmation. Also Nepal, Bangladesh and Myanmar.

Look-alikes

Checkered Keelback.

ADULT - Sauraha, Nepal

FRANK TILLACK

Siebold's Smooth-scaled Water Snake

Enhydris sieboldii

MILDLY VENOMOUS, RARE

Maximum 780mm (31in)

Dog-faced Water Snake

Cerberus rynchops

MILDLY VENOMOUS, COMMON

At birth 150-250mm (6-10in)
Adults 600mm (24in)
Maximum 1270mm (50in)

Description

Thick bodied with dull, strongly keeled scales. Head slightly broader than neck; small eye has elliptical pupil. Nostrils and eyes set high on head. Slate-gray, brown or olive with a darker pattern of crossbars or (sometimes faint) spots on the back. A black streak passes through eye onto the neck. Belly white or yellow with black checks, or plain dark gray.

Scalation

Scales in 23-25 (rarely 21 or 27) rows, strongly keeled. Ventrals (122) 137-159; anal divided; subcaudals 49-72, paired. Nasal shields touching despite presence of 2 internasals; frontal partly and parietals entirely broken up into small scales. Loreal higher than long, extending well on to top of snout; 1 pre-, 1 post- and 2 suboculars; 9-10 supralabials (5th and 6th below eye, last 2 or 3 horizontally divided). Three pairs of genials. (Most species have two pairs of genials or they are altogether absent; another snake with three pairs of genials is the Mock Viper *Psammodynastes pulverulentus*).

Natural History/ Behavior

Nocturnal. An excellent swimmer; moves rapidly across mud by side-winding. Found in mudflats, estuaries, mangrove swamps, even in paddy fields several miles from the coast. Often lives in crab holes and under rocks near the shore line. Eats fish and eels. Sometimes seen mating or feeding by day. Male combat observed south of Chennai in December. Between 6-30 live young born February-May (other months reported in some areas). Newborn often stay with mother for a week or more. Usually mild-mannered.

Distribution

India: coasts and tidal rivers (including the Andaman & Nicobar Islands). Also Pakistan, Bangladesh and Sri Lanka, up to Australia (North coast). Interestingly, in Australia an aboriginal name for it is "*bokadam*"- the Telugu name for the same snake.

Look-alikes

Sea snakes.
Other brackish-water snakes (Homalopsines).

ADULT - Gorai, Mumbai coast, Maharashtra, India

Dog-faced Water Snake

Cerberus rynchops

MILDLY VENOMOUS, COMMON

At birth 150-250mm (6-10in); adult length 600mm (24in); maximum 1270mm (50in)

Dog-faced Water Snake

Cerberus rynchops

MILDLY VENOMOUS, COMMON

At birth 150-250mm (6-10in); adult length 600mm (24in); maximum 1270mm (50in)

ADULT - Mumbai coast, Maharashtra, India

ADULT - Mumbai coast, Maharashtra, India

Dog-faced Water Snake

Cerberus rynchops

MILDLY VENOMOUS, COMMON

At birth 150-250mm (6-10in); adult length 600mm (24in); maximum 1270mm (50in)

Glossy Marsh Snake

Gerarda prevostiana

MILDLY VENOMOUS, UNCOMMON

Maximum 525mm (21in)

Description

Body cylindrical, smooth-scaled. Head very slightly broader than neck; small eye, situated high on head, has vertical pupil. Short tail has pointed tip. Uniform gray, brown or olive back has a distinct ivory white or pale yellow lateral stripe from lip scales to tip of tail. Stripe situated on three body scale rows closest to belly. Lip scales often edged with dark gray or olive. Belly scales gray with white outer edges; or white with a dark gray margin – sometimes with a dark gray mid-belly stripe; or yellow. Scales under tail distinctly darker than belly scales.

Scalation

Scales in 17 : 17 : 15 (rarely 13) rows, smooth. Ventrals 144-157; anal divided; subcaudals 29-36, paired. Frontal much broader than supraocular. Supralabials 7, rarely 8 (4th touching eye); preocular 1; postoculars 2; temporals 1+2 or 2+2. A single internasal separates the nasals – a character seen in several other estuarine snakes. Most other snakes have two internasals or none at all.

Natural History/ Behavior (after Voris)

Nocturnal, sometimes seen by day. Inhabits coastal areas, mangroves and estuaries. Eats fish, shrimp and other small aquatic animals. Recent studies show this species rests in mud lobster (*Thalassina anomala*) holes during the day and eats recently moulted crabs (whose shells are still soft). If the crab is too big to swallow whole, the snake pulls the crab through a body coil to tear it into smaller pieces. Bears live young.

Distribution

India: coasts and tidal rivers. Also coasts of Bangladesh, Myanmar, Sri Lanka, Malaysia and Thailand.

Look-alikes

Other brackish-water snakes (Homalopsinae).

ADULT - Ratnagiri coast, Maharashtra, India

Glossy Marsh Snake

Gerarda prevostiana

MILDLY VENOMOUS, UNCOMMON

Maximum 525mm (21in)

Glossy Marsh Snake

Gerarda prevostiana

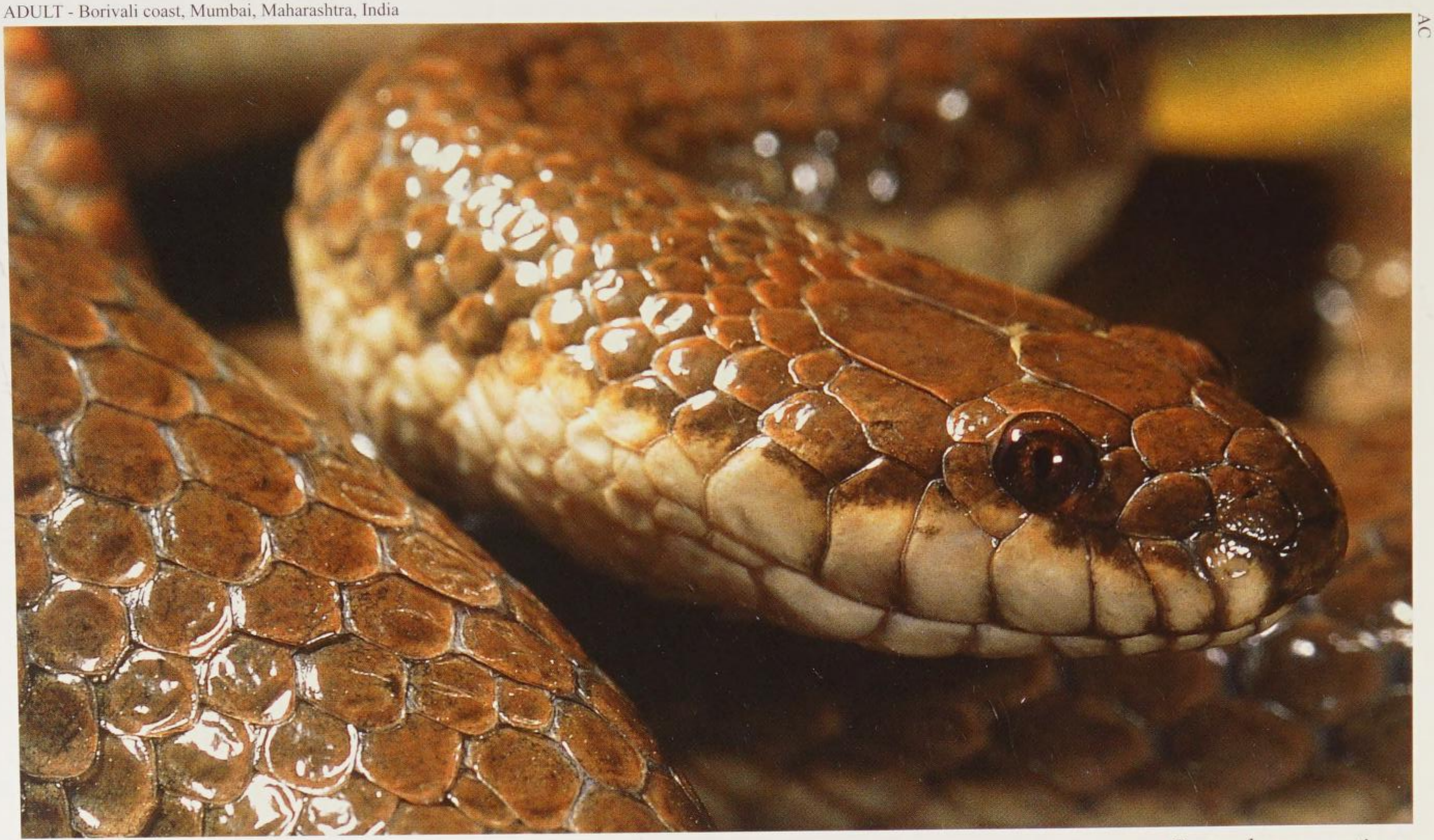
MILDLY VENOMOUS, UNCOMMON

Maximum 525mm (21in)

ADULT - Ratnagiri coast, Maharashtra, India

AC

ADULT - Borivali coast, Mumbai, Maharashtra, India



Glossy Marsh Snake

Gerarda prevostiana

MILDLY VENOMOUS, UNCOMMON

Maximum 525mm (21in)

Crab-eating Watersnake — *Fordonia leucobalia*

MILDLY VENOMOUS, RARE

At birth 180mm (7in)
Maximum 940mm (37in)

Description
Body stout, cylindrical, smooth-scaled. Head short, not broader than neck; snout rounded. Very small eye has vertical pupil. Tail short. Variable in color. Gray or brown above, sometimes with small black spots. Underside white or yellow.

Scalation
Scales in 25-27 rows, smooth. Ventrals 137-159 (last 1 or 2 often divided); anal divided; subcaudals 27-43, paired. Internasal 1; preocular 1; postoculars 1-2; anterior temporals 1-2; supralabials 5 (3rd touching eye, rarely 2nd and 3rd touching eye); loreal usually absent; frontal about 4 times broader than supraocular.

Natural History/ Behavior (after Voris)
Nocturnal. Rests in mud lobster (*Thalassina anomala*) mounds by day. Found in mangroves and river mouths. Eats crabs. This snake has an unusual feeding technique. It strikes with closed mouth and pins crabs using chin and underside before biting them. It also tears legs off larger crabs before swallowing them. Bears 6-15 live young.

Distribution

India: West Bengal (Sunderbans), Nicobar Islands. Also Thailand, Malaysia, Singapore, Myanmar, Java, New Guinea and Australia.

Look-alikes
None.

ADULT - Kunini, Papua New Guinea

MARK O'SHEA

Crab-eating Watersnake

Fordonia leucobalia

MILDLY VENOMOUS, RARE

At birth 180mm (7in); maximum 940mm (37in)

Yellow-banded Mangrove Snake — *Cantoria violacea*

MILDLY VENOMOUS, UNCOMMON* — Maximum 1200mm (47in)

Description
Long, cylindrical, smooth-scaled body. Head slightly flattened, not broader than neck, has 2-3 yellow or white cross-bands that may be broken up into a series of spots. Small eye has vertical pupil. Tail short and blunt. Black, dark gray or brown back with thin dull yellow or white cross-bands that usually form complete rings on tail; belly blackish-gray or white, sometimes with darker markings.

Scalation
Scales in 19 : 19 or 21 : 17 rows, smooth; ventrals 243-291, well developed; anal divided; subcaudals 52-69, paired. Preocular 1; postocular 1 (+1 subocular); supralabials 5 (3rd and 4th below, but not touching eye); anterior temporal 1, long.

Natural History/ Behavior
Nocturnal. Seen on mudflats in mangrove marshes at low tide. Feeds during low tide on small fish and shrimp stranded in pools; possibly eats small crabs as well. Several individuals in the Andamans were seen with their tails inside crab holes. It is unclear whether the snakes use the holes as a shelter or merely as an anchoring aid. Thought to be venomous in the Andamans, perhaps because of its resemblance to the Andaman Krait.

Distribution

India: Middle and North Andaman; probably the Nicobar Islands. *Though uncommon, 17 snakes were found in two hours one night on a large, undisturbed mudflat (Chippo) on North Andaman Island. Also much of Southeast Asia.

Look-alikes
Juvenile King Cobra.
Andaman Krait.

ADULT - Chippo, North Andaman Island, India.

SAMEER GHODKE

Yellow-banded Mangrove Snake

Cantoria violacea

MILDLY VENOMOUS, UNCOMMON*

Maximum 1200mm (47in)

Banded Krait

Bungarus fasciatus

VENOMOUS, COMMON

At birth 250-400mm (10-16in)
Adults 1500mm (59in)
Maximum 2250mm (89in)

Description

Scales smooth. Head slightly broader than neck; eye entirely black (round pupil not visible in life); short tail has blunt, rounded tip. Body and tail triangular in cross-section; vertebral ridge prominent. Equally spaced, wide yellow/pale brown/white and black bands. Uppermost scale row on back six-sided and much larger than adjacent scales. Scales under tail are entire and resemble belly scales (not divided by zigzag line running along middle). Banded Kukri Snakes and several wolf snakes are mistaken for this species.

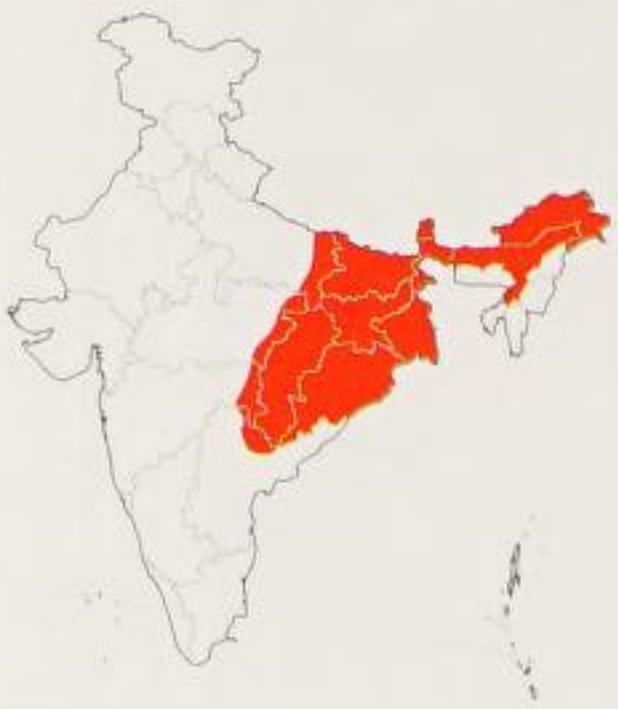
Scalation

Scales in 15 : 15 : 15 rows, smooth. Ventrals 200-236; anal entire; subcaudals 23-39, entire. Preocular 1; postoculars 2; loreal absent; temporals 1+2; supralabials 7 (3rd and 4th touching eye).

Natural History/ Behavior

Nocturnal, lives in termite mounds and rodent burrows close to water. Prefers open plains country, but also found up in lower hill country. Eats mainly snakes (even Common Kraits), snake eggs, skinks, rats, and sometimes fish. Females lay 4-14 eggs (around April in West Bengal) and stay with them during incubation. Timid, mild-tempered by day, much sharper at night, but more reluctant to bite than the Common Krait. Venom much weaker than that of the Common Krait. Bites surprisingly rare, but there is a record of a man who died in 15 hours from a Banded Krait bite.

Distribution



India: West Bengal, Bihar, Orissa, Assam upwards to Arunachal Pradesh. Also occurs in Gadchiroli district of Maharashtra, parts of Madhya Pradesh, northern Andhra Pradesh, and Uttar Pradesh. Not found in South, West or Northwest India. Also Bangladesh, Nepal, Bhutan, Myanmar, Thailand, Malaysia, China. Common in parts of range. Found up to 1500m (4920ft).

Look-alikes

Yellow-banded Wolf Snake.
Banded Kukri Snake.

Banded Krait

Bungarus fasciatus

VENOMOUS, COMMON

At birth 250-400mm (10-16in); adults 1500mm (59in); maximum 2250mm (89in)

Common Krait

Bungarus caeruleus

VENOMOUS, COMMON

At hatching 250-280mm (10-11in)
Adults 1000mm (39in)
Maximum 1750mm (69in)

Description

Smooth-scaled. Head slightly broader than neck; eye entirely black, round pupil not visible in life. Glossy black, pale faded bluish-gray or dark brownish-black above (often with blue iridescence) with narrow (sometimes paired) white cross-lines that continue to pointed tip of short tail. These lines usually absent on forebody or they are replaced by white vertebral spots. Uppermost scale row on back six-sided, broader than long, and much larger than adjacent scales. Underside glossy white or yellowish. Scales under tail entire and resemble belly scales (not divided by zigzag line running along middle). Young often marked throughout. Tongue pinkish-red.

Scalation

Scales in 15 : 15 : 15 rows, smooth. Ventrals 200-217 (234); anal undivided, subcaudals 33-52, entire. Preocular 1; postoculars 2; loreal absent; temporals 1+2; supralabials 7 (3rd and 4th touching eye).

Natural History/ Behavior

Nocturnal; alert and active at night. By day has been found resting in termite mounds, rodent burrows, piles of brick and rubble, and even in rolled up carpets. Often found in farms and gardens near water. Eats snakes (even other kraits), sometimes rodents, lizards, and frogs. Male combat observed in January in Chennai. Lays 8-12 eggs in March–May which hatch about 60 days later. The female stays with eggs during incubation. Produces the most potent venom of all our land snakes. One of the Big Four medically important snakes of India (for which antivenom serum is available). Bites usually happen at night but are not painful like a cobra or viper bite. There are many records of people asleep on the ground being bitten by this snake. A suspected krait bite must be treated at hospital without any delay.

Distribution

Most of mainland India up to 1700m (5580ft), uncommon where the Banded Krait occurs. Probably absent in the Northeast above Assam. Also Pakistan, Nepal, Bangladesh, and Sri Lanka.

Look-alikes

Wolf snakes.
Bridal snakes.
Other kraits.

ADULTS - Pune district, Maharashtra, India • Inset: Close-up of vertebral scales, Hampi, Karnataka, India

Common Krait

Bungarus caeruleus

VENOMOUS, COMMON

At hatching 250-280mm (10-11in); adults 1000mm (39in); maximum 1750mm (69in)

Common Krait

Bungarus caeruleus

VENOMOUS, COMMON

At hatching 250-280mm (10-11in); adults 1000mm (39in); maximum 1750mm (69in)

ADULT - Pune district, Maharashtra, India

AC

Top: ADULT - Vadanemmeli, Tamil Nadu, India • Bottom: JUVENILE - Kerala, India

INDRANEIL DAS

Common Krait

Bungarus caeruleus

VENOMOUS, COMMON

At hatching 250-280mm (10-11in); adults 1000mm (39in); maximum 1750mm (69in)

Andaman Krait

Bungarus andamanensis

VENOMOUS, UNCOMMON

Maximum 1000mm (39in)

Description

Smooth-scaled. Head slightly broader than neck; eye entirely black (round pupil not visible in life). Scales along midback six-sided, broader than long and much larger than other scales. Glossy black or brownish above, often with blue iridescence; 39-47 narrow white or yellowish-white equidistant cross-lines (distinct throughout body) and 9-13 cross-lines on short tail. No vertebral spots. Markings absent or indistinct in juveniles. Underside glossy yellowish-white. Scales under tail mottled with grayish-black and entire (not divided by zigzag line running along middle).

Scalation

Scales in 15 : 15 : 15 rows, smooth. Ventrals 192-200; anal 1; subcaudals 40-47, entire. Preocular 1; postoculars 2; loreal absent; temporals 1+2; supralabials 7 (3rd and 4th touching eye).

Natural History/ Behavior

Nocturnal, secretive. Active during the monsoon. Seen on roads, near water-filled ditches, in freshwater streams, in paddy fields and on low bushes. Eats snakes. Lays eggs. Nothing is known about its venom but kraits do have the most toxic venoms of all Asian land snakes. We have found the Andaman Krait to be shy and non-aggressive. No known fatalities reported.

Distribution

Endemic to the Andaman Islands. The only krait found on the Islands.

Look-alikes

Yellow-banded Mangrove Snake.
Andaman Keelback (some forms).

ADULT - Kanaidera Hills, North Wandoor, South Andaman Island, India

SAMEER GHODKE

Andaman Krait

Bungarus andamanensis

VENOMOUS, UNCOMMON

Maximum 1000mm (39in)

Black Krait

Bungarus niger

VENOMOUS, RARE

Maximum 1295mm (51in)

Description

Smooth-scaled. Head slightly broader than neck; eye entirely black (round pupil not visible in life); tail tip pointed. Uniform glossy, iridescent black or dark chocolate brown above. White interscale skin on back visible in some snakes. Uppermost scale row on back six-sided and much larger than adjacent scales. Lower portion of upper lip scales and lower lip scales white. Underside off-white; upper or lower, and outer edges of most scales shaded with brown. Scales under tail undivided and resemble belly scales (not divided by zigzag line running along middle). Tongue red.

Scalation

Scales in 15 : 15 : 15 rows, smooth. Ventrals 216-231; anal entire; subcaudals 47-57, entire. Preocular 1; postoculars 2; loreal absent; temporals 1+2 (rarely 1+1); supralabials 7 (3rd and 4th touching eye).

Natural History/ Behavior

Poorly known. Nocturnal. Eats snakes; in captivity, feeds voraciously on mammals. Lays eggs. Nothing is known about the venom, but it is likely to be very toxic as in other kraits.

Distribution

India: Sikkim, West Bengal (Darjeeling and Jalpaiguri districts), Assam (Dibrugarh, Margherita, Sadiya, Sibsagar, Jaipur and Cachar district), Meghalaya (Garo Hills), Arunachal Pradesh (Papum Pare and Changlang districts). Also Nepal, Bhutan, Bangladesh. Found up to 1450m (4757ft).

Look-alikes

Lesser Black Krait (not featured).
Oriental Slender Snake.

ADULT - Naudanda, Nepal

FRANK TILLACK

Black Krait

Bungarus niger

VENOMOUS, RARE

Maximum 1295mm (51in)

Wall's Sind Krait

Bungarus sindanus walli

VENOMOUS, RARE

Maximum 1518mm (60in)

Description

Smooth-scaled. Head slightly broader than neck; eye entirely black, round pupil not visible in life. Glossy black, grayish- or brownish-black back (often with blue iridescence) with thin, unpaired, white cross-lines on body and tail. On forebody cross-lines broken into a chain of white dots. Uppermost scale row on back six-sided, broader than long, and much larger than adjacent scales. Underside white or yellowish. Scales under tail undivided and resemble belly scales (not divided by zigzag line running along middle). Three subspecies recognized, two of which are found in India: (i) Wall's Sind Krait and (ii) the Sind Krait. They are differentiated on the bases of their distribution and differences in the number of belly scales.

Scalation

Bungarus sindanus walli. Scales in 17 or 19 : 17 (very rarely 19) : 17 rows. Ventrals 196-208; subcaudals 50-55. *Bungarus sindanus sindanus*. Scales in 17 rows at midbody. Ventrals 220-237; subcaudals 45-53. Characters common to both subspecies: scales smooth; preocular 1; postoculars 2; loreal absent; temporals 1+2; supralabials 7 (3rd and 4th touching eye); anal and subcaudals entire.

Natural History/ Behavior

Largely unknown as Wall's Sind Krait is nearly always confused with the Common Krait (*Bungarus caeruleus*). Nocturnal. One was found in a house amongst television and video cables. Eats snakes in captivity; like the Common Krait, may also feed on rodents, lizards, and frogs. Lays eggs. The venom of Wall's Sind Krait is likely to be as toxic as Common Krait venom, making it among the most venomous snakes in India.

Distribution

Endemic to India. Wall's Sind Krait has a patchy distribution in the Gangetic Plain, Central and Western India – Uttar Pradesh, (Faizabad), Maharashtra (Pune, Sholapur), Bihar (Gaya, Purnia) and Bengal (Midnapore). Distribution still poorly understood. (The Sind Krait is restricted to Rajasthan and probably parts of Gujarat. Also Pakistan).

Look-alikes

Other kraits.
Wolf snakes.
Bridal Snake.

ADULT - Akurdi, Pune district, Maharashtra, India

Wall's Sind Krait

Bungarus sindanus walli

VENOMOUS, RARE

Maximum 1518mm (60in)

Slender Coral Snake — *Calliophis melanurus*

VENOMOUS, RARE — Maximum 350mm (14in)

Description

Body extremely slender, cylindrical. Scales smooth. Head scarcely broader than neck. Small eye entirely black. Short tail. Head blunt, black with whitish or yellowish spots on nape. Back light brown, each scale speckled with brown; underside coral red; tail brown with two black rings; underside of tail bluish-gray. Often confused with Duméril's Black-headed Snake (which has a pale yellow underside and a much longer, gradually tapering tail).

Scalation

Scales in 13 : 13 : 13 rows, smooth. India: ventrals 249-277; subcaudals males 33-37, females 24-27. Sri Lanka: ventrals 229-257; subcaudals 27-37. Common characters: single preocular touches nasal; 2 postoculars; temporals 1+1, supralabials 6 (3rd and 4th touching eye, 5th and 6th touching temporal); anal scale divided; subcaudals paired.

Natural History/ Behavior

Poorly known. Found under leaf litter in the wild; burrows under sand in captivity. Diet unknown. Lays 2 to 6 eggs. When disturbed will raise and coil tail (to draw attention away from head). Bites cause slight swelling and itching.

Distribution

Not clearly known. Probably most of Peninsular India (except the extreme Northwest). Definite records from Gujarat, Maharashtra, Karnataka, Tamil Nadu and West Bengal. Also Bangladesh and Sri Lanka.

Look-alikes

Black-headed Snakes.

ADULT - near Mumbai, Maharashtra, India

Slender Coral Snake

Calliophis melanurus

VENOMOUS, RARE

Maximum 350mm (14in)

Striped Coral Snake

Calliophis nigrescens

VENOMOUS, RARE

Maximum 1140mm (45in)

Description

Body extremely long, slender, cylindrical. Scales smooth. Head scarcely broader than neck. Small eye entirely black. Short tail. Variable in color, but has reasonably consistent pattern. Pale brick-red, light to dark purplish-brown or black above, with three or five black stripes on body and three on tail. Body stripes sometimes broken into a series of dashes, and/or have broken white margins. Tail stripes unbroken. Top of head black, with symmetrical pale brownish-white marks. Broad black bar on nape from which upper three stripes originate. Lip scales pale yellowish-pink; those under eye black. Black on head continues as a streak from behind eye to back of mouth. Belly scales coral red (rarely edged behind with black or brown), white or pale rose-pink in juveniles. Underside of tail red and white. Stripes extremely faint or absent in some black color forms (variety *khandallensis* from Khandala, Maharashtra); in other black forms, interrupted stripes outlined with white (Amboli, Maharashtra).

Scalation

Scales in 13 : 13 : 13 rows, smooth. Ventrals 234-251; anal scale divided; subcaudals males 35-44, females 32-36, paired. Single preocular touches nasal; postoculars 2; temporals 1 (very long) or 1+2; supralabials 7 (3rd and 4th touching eye, 5th to 7th touching temporal).

Natural History/ Behavior

Feeds on snakes, usually shieldtails, narrow-headed snakes and worm snakes. Lays eggs. When disturbed, will try to wriggle away or curl tail and will display brightly colored underside.

Distribution

Endemic to India. The Western Ghats: recorded from the hills of Kerala and Tamil Nadu (Munnar, the Nilgiris, the Anamalais, Travancore and Shevaroy Hills), Maharashtra (Amboli, Panchgani, Sinhagad, Khandala, Bhimashankar) and Gujarat (near Saputara village, Dang district). A hill species, found up to 2000m (6560ft). There is a doubtful record from Bangladesh.

Look-alikes

Dark forms of other coral snakes.
Shieldtails.
Kukri snakes.

ADULT - Valparai, Tamil Nadu, India

S.U. SARAVANAKUMAR

Striped Coral Snake

Calliophis nigrescens

VENOMOUS, RARE

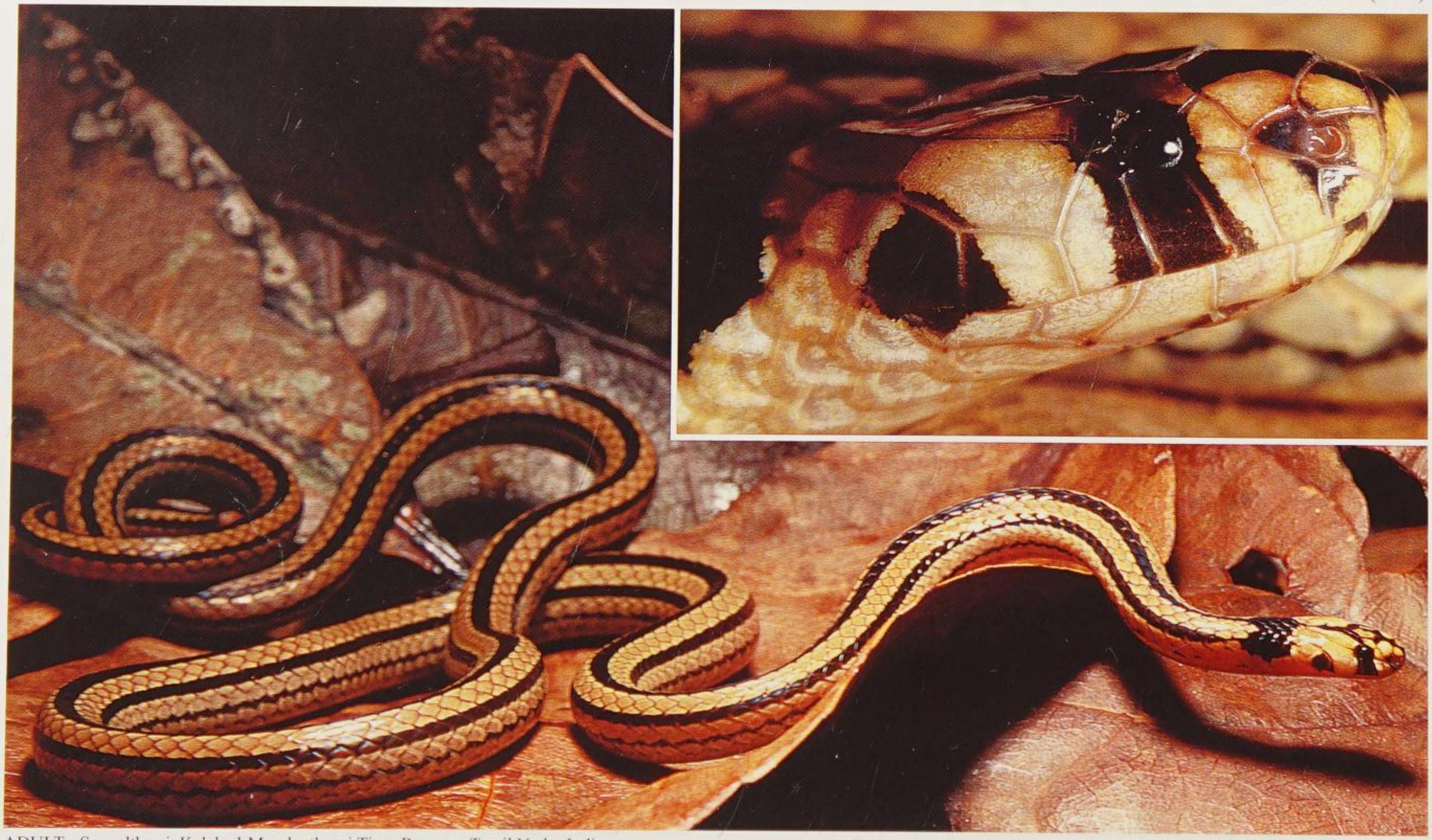
Maximum 1140mm (45in)

Striped Coral Snake

Calliophis nigrescens

VENOMOUS, RARE

Maximum 1140mm (45in)



ADULT - Sengaltherri, Kalakad-Mundanthurai Tiger Reserve, Tamil Nadu, India

S.U. SARAVANAKUMAR

ADULT - Khandala, Pune district, Maharashtra, India

Striped Coral Snake

Calliophis nigrescens variety *khandallensis*

VENOMOUS, RARE

Maximum 1140mm (45in)

Macclelland's Coral Snake *Sinomicrurus macclellandi*

VENOMOUS, RARE Maximum 812 mm (32in)

Description
Body slender, cylindrical. Scales smooth. Head very slightly or not broader than neck. Small eye almost entirely black, has round pupil. Short tail with sharply pointed tip. Glossy reddish-brown with narrow, black cross-lines on back. Cross-lines occasionally bordered with yellow or pale brown. There are sometimes small, (paired/single) black spots between cross-lines. Head glossy black, with broad, usually angular, enamel-white or pale yellow cross-band behind eyes. Tip of snout often enamel white. Underside pale yellow with black cross-bands or squarish spots. A subspecies, the Single-striped Macclelland's Coral Snake (*Sinomicrurus macclellandi univirgatus*) has a black (sometimes broken) stripe along the back and occasionally, additional cross-lines on sides of body.

Scalation
Scales in 13 : 13 : 13 rows, smooth. Ventrals: males 182-212, females 208-244; anal divided; subcaudals: males 28-36, females 25-33, paired, or some unpaired. Single Preocular 1, touches nasal; postoculars 2; temporals 1+1, supralabials 7 (3rd and 4th touching eye; 5th and 6th touching anterior temporal).

Natural History/ Behavior
Crepuscular or nocturnal and secretive. Usually found in hilly, forested areas. Eats snakes and small lizards. Lays 6-14 eggs during the monsoon. Usually inoffensive and sluggish by day. An adult seen during early evening (Arunachal Pradesh) was quick, alert, and "krait-like" in its movements. If disturbed, may flatten body, lift and curl tail. Nothing is known about its venom except that it paralyzes small prey. In Thailand severe neurotoxic symptoms have been reported from coral snake bite. "Tail-curling" is not a reliable means of telling whether the snake is a coral snake or not, as several non venomous kukri snakes also exhibit this behavior (possibly mimicking venomous coral snakes).

Distribution

Macclelland's Coral Snake: northeast India from Darjeeling to Arunachal Pradesh. Also Bangladesh, China, Myanmar, Vietnam, Laos, and Thailand. Single-striped Macclelland's Coral Snake: eastern Himalayas from Sikkim westwards. Also Nepal. Variety *nigriventer*: a single record from Himachal Pradesh (Kasauli). Found up to about 1040m (3410ft).

Look-alikes
Kukri snakes.

ADULT - Near Gandhigram, Changlang district, Arunachal Pradesh, India

Macclelland's Coral Snake

Sinomicrurus macclellandi macclellandi

VENOMOUS, RARE

Maximum 812 mm (32in)

Spectacled Cobra

Naja naja

VENOMOUS, COMMON

At hatching 250-300mm (10-12in)
Adults 1000mm (39in)
Maximum 2200mm (87in)

Description

Scales smooth, glossy. Head broad. Color, pattern, and hood mark variable; hood mark sometimes absent. Shades of brown, yellow, gray or black, often with a speckled, sometimes banded pattern. The famous "spectacled" marking (or variations) on hood usually makes identification easy. However dark or black patternless Spectacled Cobras are frequently mistaken for the Central Asian Cobra.

Scalation (after Wüster)

Typically (but not always) a single cuneate scale on each side. Frontal clearly longer than broad. Scales smooth. Males. Scales in 23-37 rows (at 10th ventral): 19-25 (at 20% of ventrals): 21-25 (at 40% of ventrals): 19-23 (at 60% of ventrals): 13-18 (at 80% of ventrals): 15-18 (at vent). Ventrals 171-197; subcaudals 53-67, paired. Females. Scales in 23-37 rows (at 10th ventral): 19-25 (at 20% of ventrals): 20-25 (at 40% of ventrals): 17-24 (at 60% of ventrals): 15-17 (at 80% of ventrals): 15-18 (at vent). Ventrals 178-196; subcaudals 50-65, paired. Specimens in the Northwest have lower dorsal scale row counts than southern and eastern populations.

Natural History/ Behavior

Active by day and night. One of India's commonest snakes. A good swimmer. Seen in fields, near streams, rock piles, trees, granaries and grain shops. Often lives in rat holes or termite mounds. Feeds on rodents, toads, frogs, birds and snakes. Lays 12-30 eggs between March-July. Females stay with eggs till they hatch in about 60 days. Fast and alert. Generally shy. If alarmed, may raise forebody (some to more than half their body length) and spread hood. If further disturbed, will hiss and strike forcefully. One of India's Big Four medically important snakes. Though responsible for many bites, only a small percentage are fatal.

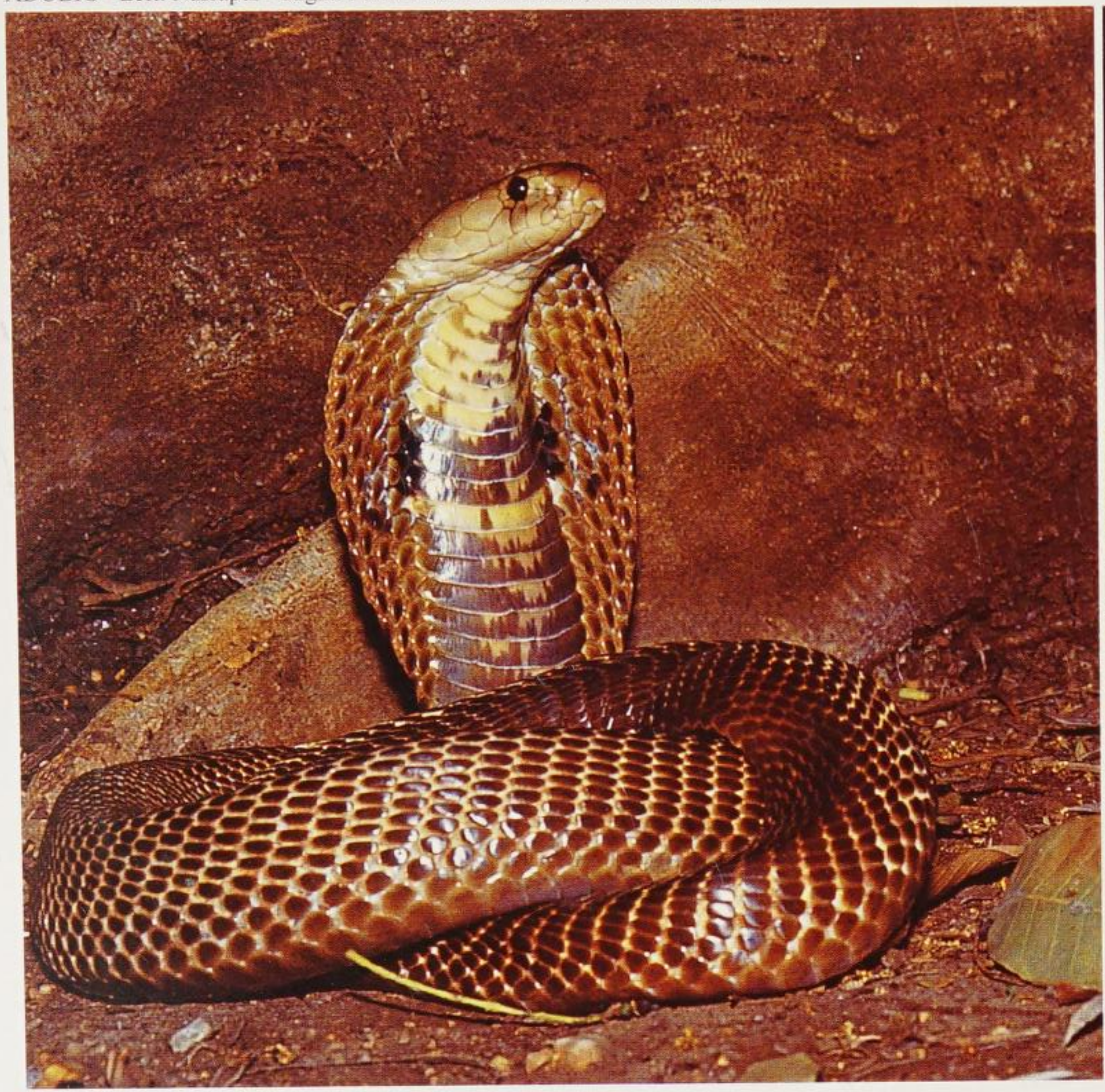
Distribution

Throughout mainland India (excluding the Northeast). Also Pakistan, Sri Lanka, Bangladesh, Nepal, and Bhutan. Found from sea level up to 2000m (6560ft).

Look-alikes

Indian Rat Snake.
Banded Racer.
Indian Smooth Snake.

ADULTS - Left: Nasrapur • Right: Pune. Both Pune district, Maharashtra, India



Spectacled Cobra

Naja naja

VENOMOUS, COMMON

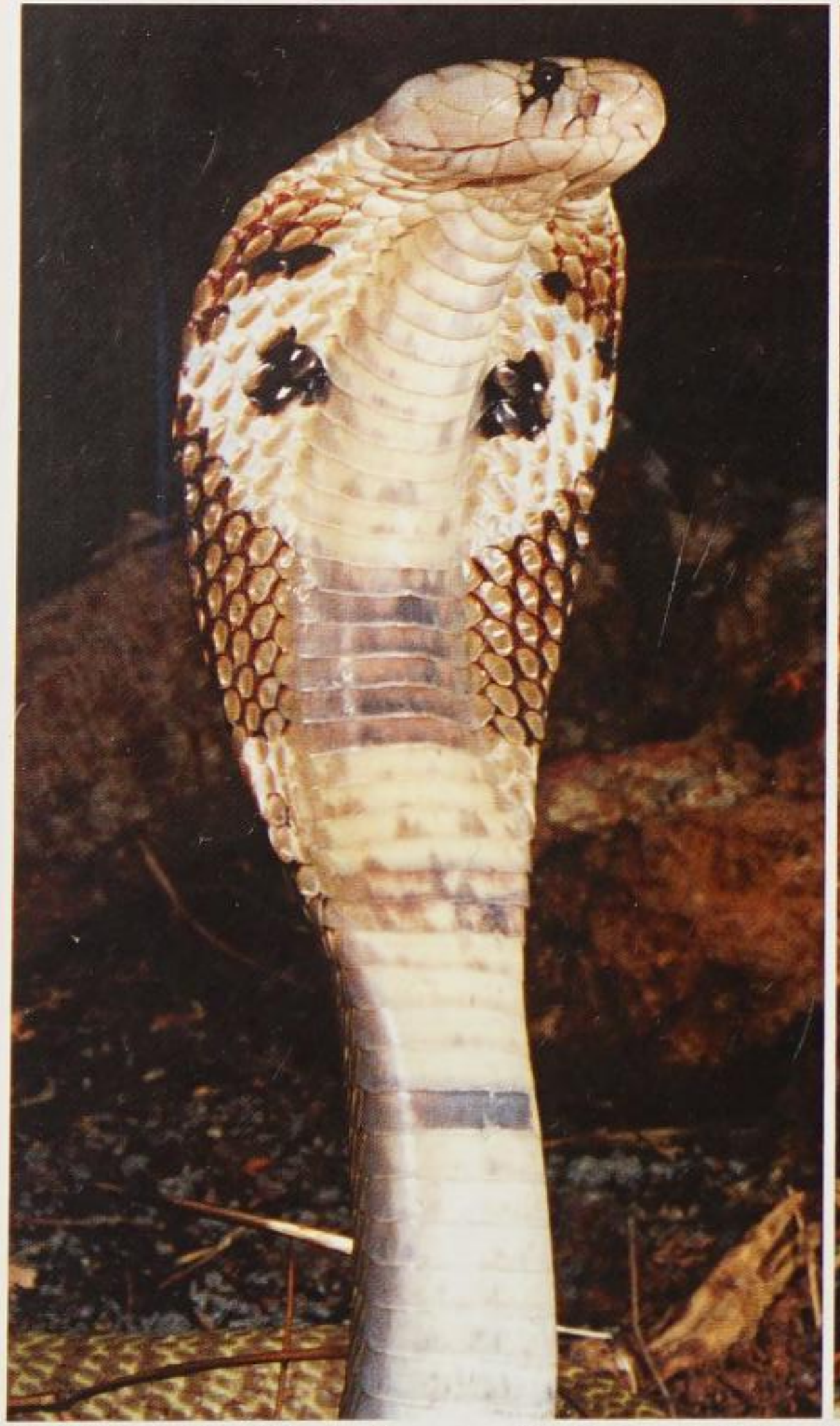
At hatching 250-300mm (10-12in); adults 1000mm (39in); maximum 2200mm (87in)

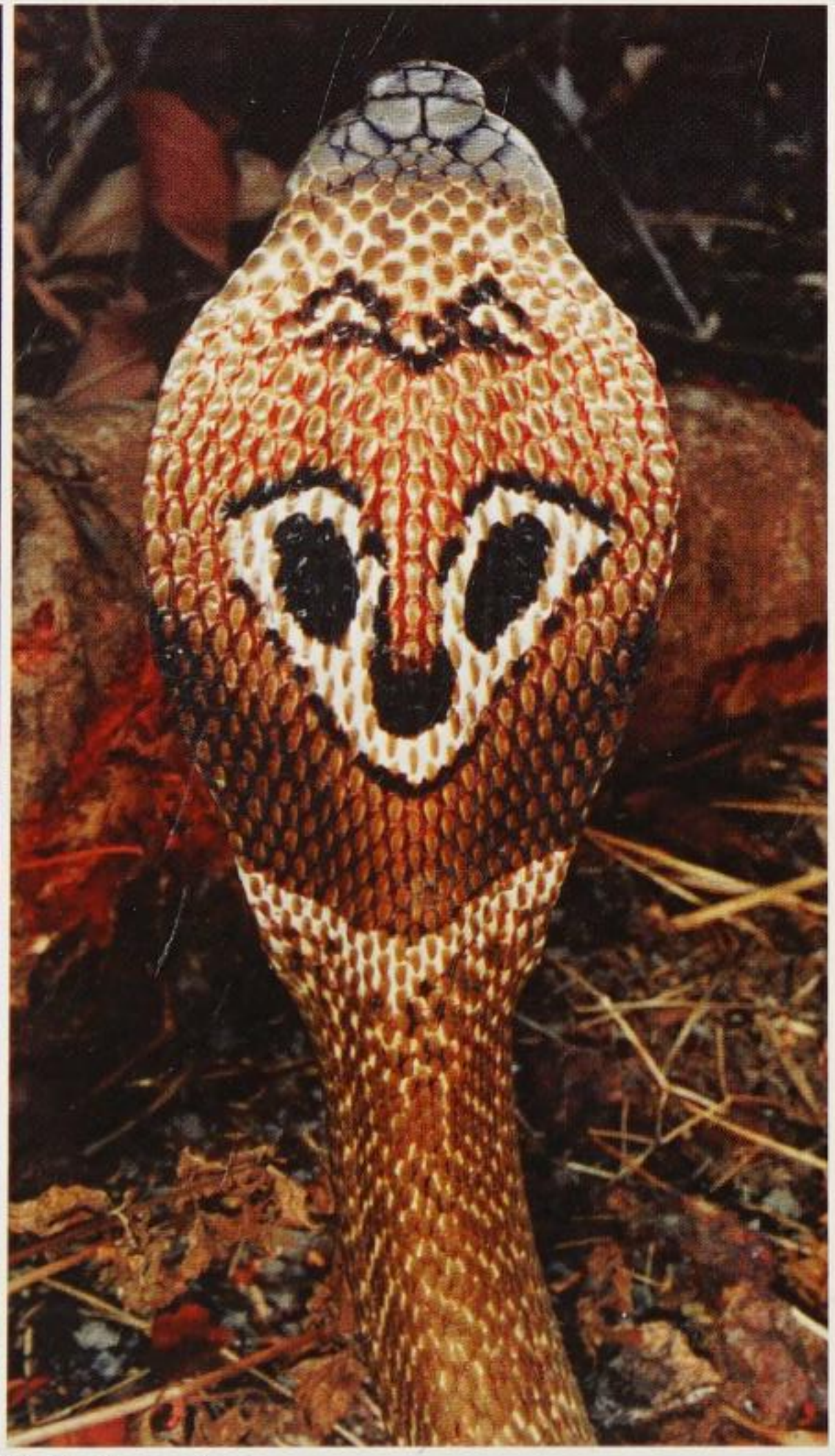
Spectacled Cobra

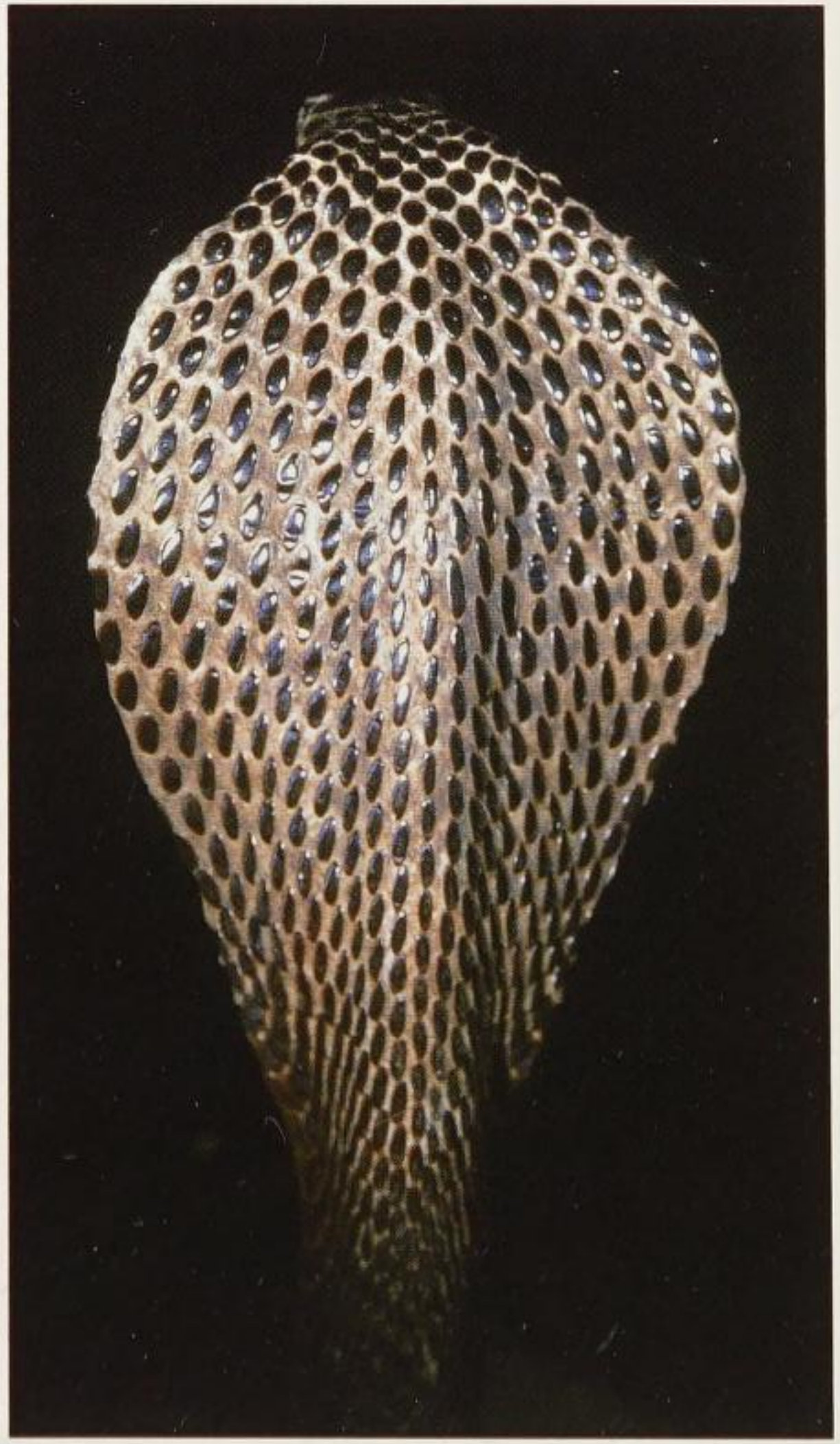
Naja naja

VENOMOUS, COMMON

At hatching 250-300mm (10-12in); adults 1000mm (39in); maximum 2200mm (87in)







ADULTS - Left and Center: Porvorim, Goa, India • Right: Locality Northwest India

Spectacled Cobra

Naja naja

VENOMOUS, COMMON

At hatching 250-300mm (10-12in); adults 1000mm (39in); maximum 2200mm (87in)

Monocled Cobra

Naja kaouthia

VENOMOUS, COMMON

At hatching 200-350mm (8-14in)
Adults 1000mm (39in)
Maximum 2300mm (91in)

Description

Scales smooth, glossy. Head broad. Color, pattern, and hood mark variable. Shades of brown, yellow, gray or black, uniform or with ragged yellowish cross-bands (specially in West Bengal and the Gangetic Plain). An eye-shaped hood mark almost always present (sometimes faint, rarely broken up). Hood rounder and smaller than that of Spectacled Cobra. Throat pale, followed by a mottled, then dark area. Scales under tail often dark-edged. Juveniles from Bengal and Assam are black and "monocled". With age, the black fades to olive or brown.

Scalation (after Wüster)

Usually more than one cuneate scale on each side. Frontal short, almost square, much shorter than its distance from the rostral. Scales smooth. Males. Scales in 26-34 rows (at 10th ventral): 19-23 (at 20% and 40% of ventrals): 17-21 (at 60% of ventrals): 14-17 (at 80% of ventrals): 14-19 (at vent). Ventrals 170-192; subcaudals 48-61, paired. Females. Scales in 24-33 rows (at 10th ventral): 19-23 (at 20% and 40% of ventrals): 17-21 (at 60% of ventrals): 15-17 (at 80% of ventrals): 15-18 (at vent). Ventrals 178-197; subcaudals 46-59, paired.

Natural History/ Behavior

Mostly nocturnal; active at dusk and dawn. Inhabits wetter areas than the Spectacled Cobra; in some regions like the Sunderbans is semi-aquatic. Common in rice-growing areas and plantations. Feeds on fishes, small snakes, frogs and rats. Lays 8-18 eggs in January-March. Females generally stay with eggs until they hatch. Fast and alert. When threatened, will raise forebody, hiss loudly and strike vigorously. Fangs somewhat adapted for spitting, though records of them doing so are rare. This is a medically important snake. In India, polyvalent antivenom serum (though not specifically produced for this species) is effective against bites.

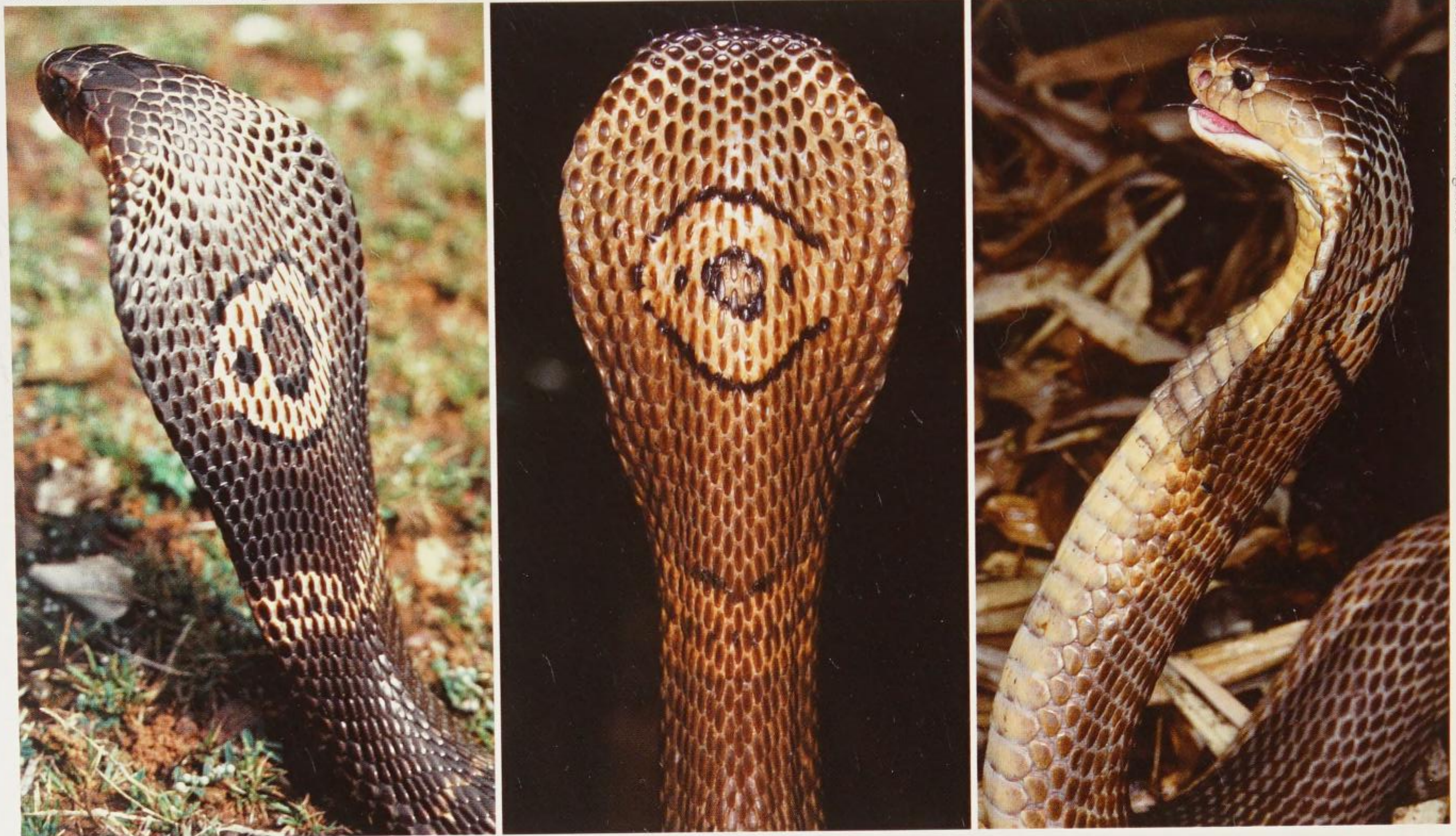
Distribution

India: North and eastern India from Haryana (Sonipat), most of the Gangetic Plain, Uttar Pradesh, West Bengal, Orissa, Sikkim, Assam to Arunachal Pradesh. Records from Uttar Pradesh and Bihar need confirmation. Also Bangladesh, Nepal, China, most of Southeast Asia to Peninsular Malaysia.

Look-alikes

Other cobras.
False Cobra.

ADULTS - Left: Sunderbans, Bangladesh • Center and right: Orissa, India



Left: RW • Center and right: AC

Monocled Cobra

Naja kaouthia

VENOMOUS, COMMON

At hatching 200-350mm (8-14in); adults 1000mm (39in); maximum 2300mm (91in)

Andaman Cobra

Naja sagittifera

VENOMOUS, RARE

Juveniles 635mm (25in)
Adults >1500mm (59in)

Description

Scales smooth, glossy. Head broad. Color and pattern variable; hood mark often absent. Variations include: (i) Entirely black above, hood scales occasionally edged with pale gray. (ii) Pale slate-gray with narrow, irregular white or ash-gray cross-bands some of which may fork on sides of body. Head black or dark gray; upper surface of hood with eye-shaped hood mark. (iii) Light-cream with irregular patches of black or gray. Underside pale gray – scales sometimes powdered with darker gray; throat or underside of neck may have a broad, dark cross-band. Markings less distinct in adults.

Scalation (after Wüster)

Scales smooth. Cuneates 1 or 2 on each side. Males. Scales in 27-29 rows (at 10th ventral): 21-23 (at 20% and 40% of ventrals): 21 (at 60% of ventrals): 15-17 (at 80% of ventrals): 15-17 (at vent). Ventrals 175-176; subcaudals 60-64, paired. One female examined. Scales in 27 rows (at 10th ventral): 21 (at 20%, 40% and 60% of ventrals): 16 (at 80% of ventrals): 15 (at vent). Ventrals 183; subcaudals 61, paired.

Natural History/ Behavior

Mostly diurnal. Inhabits thick forests, mangroves, and forest edges. Swims well. Seen twice swimming in mangrove waters. Young may eat amphibians and lizards, adults eat small rodents. There are several reports of this species eating domestic duck and chicken eggs – one that was captured in a chicken basket regurgitated four entire chicken eggs. Lays eggs in termite mounds and rat holes in May; female probably remains with eggs throughout incubation. Very shy, avoids confrontation. Fast and alert. When alarmed, spreads hood and may hiss loudly. Nothing is known about the venom of this snake or if antivenom serum produced from mainland cobras is effective against its bite. No bites are on record from this species.

Distribution

Endemic to the Andaman Islands.

Look-alikes

Indian Rat Snake.

ADULTS - All North Wandoor, South Andaman Island, India

Andaman Cobra

Naja sagittifera

VENOMOUS, RARE

Juveniles 635mm (25in); adults >1500mm (59in)

Andaman Cobra

Naja sagittifera

VENOMOUS, RARE

Juveniles 635mm (25in); adults >1500mm (59in)

A.N.E.T.

ADULT - North Wandoor, South Andaman Island, India

JUVENILE - North Wandoor, South Andaman Island, India

A.N.E.T.

Andaman Cobra

Naja sagittifera

VENOMOUS, RARE

Juveniles 635mm (25in); adults >1500mm (59in)

Central Asian Cobra

Naja oxiana

VENOMOUS, RARE

Adults 1100-1400mm (43-55in)
Maximum >1500mm (59in)

Description

Scales smooth, glossy. Head broad. Adults – various shades of brown above, very rarely black. Scales often light-edged. Underside has 2-6 bands near neck, then paler and partly mottled. Young have dark and light equidistant bands encircling forebody. Further back, bands broken up; underside unbanded. Bands fade with age. Commonly called the Black Cobra, but usually not black. Black colored Spectacled Cobras without hood patterns are frequently mistaken for this species and have helped perpetuate this misleading common name.

Scalation (after Wüster)

Usually one cuneate scale on each side in specimens from India and Pakistan. Frontal clearly longer then broad, longer than distance from rostral. Scales smooth. Males. Scales in 23-27 rows (at 10th ventral): 19-23 (at 20% of ventrals): 21-25 (at 40% of ventrals): 19-23 (at 60% of ventrals): 15-17 (at 80% of ventrals): 15-18 (at vent). Ventrals 193-207; subcaudals 63-71, paired. Females. Scales in 23-26 rows (at 10th ventral): 19-21 (at 20% of ventrals): 21-23 (at 40% of ventrals): 19-22 (at 60% of ventrals): 15-17 (at 80% of ventrals): 16-17 (at vent). Ventrals 191-210; subcaudals 57-70, paired.

Natural History/ Behavior

Inhabits arid/semi-arid areas. Lays eggs and female probably stays with them during incubation. Young eat amphibians and lizards; adults also eat small rodents. Shy, usually avoids confrontation. Fast and alert. When alarmed, spreads patternless hood and may hiss loudly. Venom apparently as toxic as Spectacled Cobra venom. Being a rare snake, there are no records of bites in India.

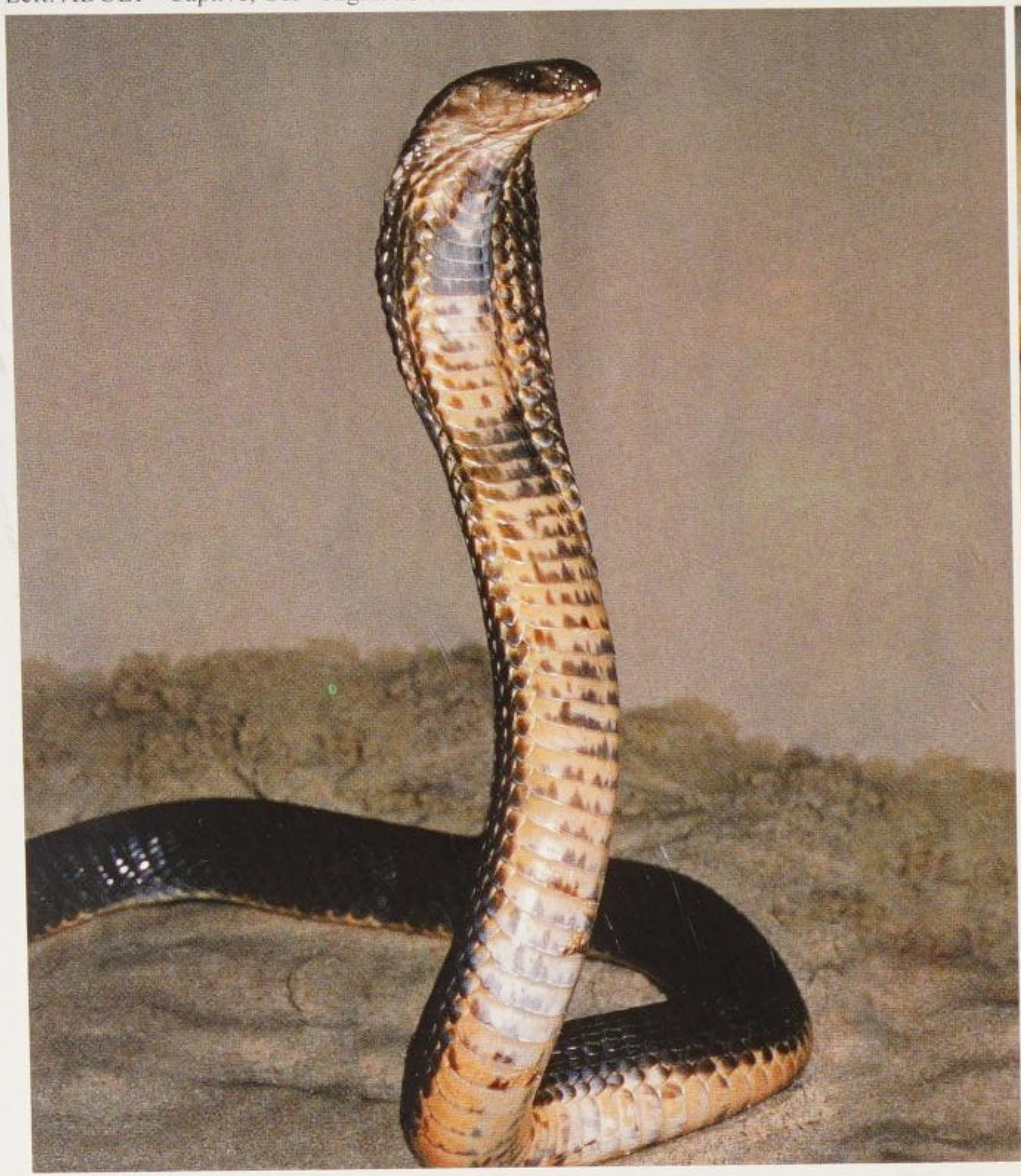
Distribution

Few authentic records from India: Jammu and Kashmir (Poonch Valley, northwest of Jammu), Himachal Pradesh, probably Punjab (Ferozpur). Though reported from Rajasthan and Gujarat, these records need confirmation as they were possibly black, patternless forms of the Spectacled Cobra. Records from Maharashtra (Melghat) are doubtful and need confirmation. Also northern Pakistan, Afghanistan, and Central Asia. Found up to 2000m (6560ft).

Look-alikes

Unmarked, black or dark Spectacled Cobra.
Banded Racer.

Left: ADULT - Captive, UK • Right: JUVENILE - Turkmenistan



Left: MARK O'SHEA • Right: FRANK TILLACK

Central Asian Cobra

Naja oxiana

VENOMOUS, RARE

Adults 1100-1400mm (43-55in); maximum >1500mm (59in)

King Cobra

Ophiophagus hannah

VENOMOUS, RARE*

At hatching 430-500mm (17-20in)
Adults 3000mm (118in)
Maximum 4750mm (187in); 5850mm (230in) in Thailand

Description

Scales smooth. Head broader than neck. Gray, black, dark olive green or yellowish-brown, usually with white or yellowish cross-bands. Some forms in the Andaman Islands are deep rust-brown, unbanded and resemble Indian Rat Snakes; one was yellowish with black and white bands. Adults from Arunachal Pradesh are entirely bluish-black without bands. Head scales (in paler forms) often edged with black. Hood longer and narrower than that of the other cobras. Bands (if present) on hood and forebody are Λ shaped. Young (including those seen in Arunachal Pradesh) are black with narrow white or yellow bands that encircle the body and tail. There are probably several species grouped under this complex.

Scalation

Scales in 17 to 19 : 15 : 15 rows, smooth. Ventrals 240-254; subcaudals 84-104; anterior scales entire, others paired. Frontal not truncate anteriorly, a pair of large occipital shields that touch, behind parietals.

Natural History/ Behavior

King Cobras seem to need conditions of heavy rainfall and inhabit thick primary forests and estuarine mangrove swamps. Also encountered in tea estates in South India and Assam. *Common in parts of Arunachal Pradesh and the Andamans, where they are often encountered in secondary forests close to river banks and small waterways near human habitation. Snake-eaters, King Cobras sometimes kill and eat monitor lizards. Females build nests of dead leaves and stay with the eggs until they hatch (70 days at 28° C). Fast and extremely alert. The longest venomous snake in the world has an undeserved reputation of being quick to attack. It is mostly reluctant to display aggression unless provoked/ harmed. King Cobra venom is much less toxic than Spectacled Cobra venom, but it can inject huge quantities (up to 7ml) at a time. The only antivenom serum for its bite is made in Thailand. Fortunately bites are very rare since this snake avoids contact with humans. In the past 20 years, four deaths from King Cobra bite have been reported in South India.

Distribution

India: the Western Ghats (Karnataka, Goa, Kerala, Tamil Nadu), Uttar Pradesh (Terai), Bihar, Orissa, West Bengal, and the Northeast (to Arunachal Pradesh) as well as the Andaman Islands. Also Bangladesh, Bhutan, Nepal all the way to the Philippines.

Look-alikes

Indian Rat Snake.
Yellow-banded Mangrove Snake.

Left: JUVENILE - Western Ghats • Center: ADULT - Karnataka, India • Right: ADULT - Orissa, India

Left: RW • Middle: Janaki Lenin • Right AC

King Cobra

Ophiophagus hannah

VENOMOUS, RARE* At hatching 430-500mm (17-20in); adults 3000mm (118in); maximum 4750mm (187in); 5850mm (230in) in Thailand

Yellow-lipped Sea Krait

Laticauda colubrina

VENOMOUS, COMMON

Maximum 1525mm (60in)

Description

Body cylindrical. Scales smooth. Head broad, but not broader than neck, nostrils on side of head; tail flat, oar-like. Bluish-gray back, ringed with 24-64 broad black bands – sometimes incomplete on belly. Top of head black; snout and short area on side of head and lip scales yellow or white; black streak behind eye. Underside yellowish.

Scalation

Scales in 21-23 (rarely 25) rows, overlapping (imbricate) and smooth. Ventrals 213-245, distinctly broader than adjacent scales; anal divided. Subcaudals: males 37-47, females 29-35, paired. Head scales entire; nostrils lateral; nasals separated by internasals; an azygous (single) shield usually separates prefrontals; frontal much longer than its distance from tip of snout; one pre-, and two postoculars; supralabials: 7 or 8 (3rd and 4th touching eye); temporals 1+2.

Natural History/ Behavior

Seen on small rocky and large forested islands, coral reefs or under rocks. Also recorded from tidal rivers. Swims well, crawls slowly on land. Regularly comes ashore; often has ticks. Moves between land and sea mainly during nocturnal high tide. Feeds on eels and other fish. Herds fish, traps them against pool wall or shore, then grabs them as they flounder. Comes ashore to lay 3-10 eggs in caves or crevices (most sea snakes bear live young in the sea and are helpless on land). Has been seen drinking rain water from depressions – captive specimens require freshwater and eventually die if only kept in salt water. Outside India, hunted by humans for its skin; preyed on by white-bellied sea eagles. A mild-mannered snake with toxic venom. One or two human deaths have been reported.

Distribution

India: the Andaman and Nicobar Islands (where it is common). An old record from Kolkata needs confirmation. Also islands of the Asia-Pacific region. Stray records from New Zealand, Mexico and Central America.

Look-alikes

Black-lipped Sea Krait (not featured).

JUVENILE - Nancowry Group, Central Nicobar Islands, India

SAMEER GHODKE

Yellow-lipped Sea Krait

Laticauda colubrina

VENOMOUS, COMMON

Maximum 1525mm (60in)

Jerdon's Sea Snake

Kerilia jerdonii

VENOMOUS, UNCOMMON

At birth 300mm (12in)
Maximum 1000mm (39in)

Description

Body cylindrical. Scales distinctly keeled. Skin on body not "loosely folded" as in most other sea snakes. Triangular head very slightly or not broader than neck. Top of head curves down to very narrow, pointed snout. Eye has round pupil. Nostrils placed high on snout. Tail flat, oar-like. Greenish-brown (olive) back with 30-38 broad black bands or marks that have a "spray-painted" appearance. Underside yellowish-white, sometimes with traces of banding. In young, bands encircle body completely.

Scalation

Scales in 21 (rarely 19) rows at midbody, overlapping (imbricate) and strongly keeled. Ventrals 225-253, not broader than adjacent scales. Supralabials 6 (3rd and 4th touching eye); preocular 1; postocular 1; anterior temporal 1. Nasals touch.

Natural History/ Behavior

Poorly known. Found near coasts. When stranded on the shore, it can crawl fairly well compared to all the other sea snakes except those of the genus *Laticauda*. Like other sea snakes, probably feeds on fish (especially eels). Bears live young. One record of 4 young in a clutch. Little is known about its venom except that it is toxic. No human fatalities reported.

Distribution

India: the west coast (Kerala); east coast records from Chennai to Puri. Also Sri Lanka.

Look-alikes

Other sea snakes.

ADULT (DEAD SPECIMEN) - Kota Kinabalu

R. B. STEUBING

Jerdon's Sea Snake

Kerilia jerdonii

VENOMOUS, UNCOMMON

At birth 300mm (12in); maximum 1000mm (39in)

Hook-nosed Sea Snake

Enhydrina schistosa

VENOMOUS, COMMON

At birth 150-280mm (6-11in)
Adults 600-1100mm (24-43in)
Maximum 1580mm (62in)

Description

Scales keeled. Head slightly or not broader than neck. Scale at tip of snout extends downward and looks like a beak or "hook-nose". Tail flat, oar-like. Upper surface of head and body pale gray, bluish- or greenish-gray, unbanded or faintly banded. Underside yellowish-white. Young similarly colored with distinct dark blackish-gray bands or rings. Belly scales distinct, slightly broader than those on sides of body.

Scalation

Scales with short central keel. Males: 40-52 scale rows on neck, 49-60 on body; females: 42-55 scale rows on neck, 51-66 on body. Preocular 1; postoculars 1 or 2; supralabials 7 or 8 (3rd and 4th or 4th touching eye). Usually 1 anterior temporal.

Natural History/ Behavior

The most common of our sea snakes. Excellent swimmer, active by day and night, capable of staying underwater for long periods. Usually found in shallow, coastal waters or in river estuaries. Feeds on fish. Forages by day or night; activity is guided by tides – avoids strong tidal action. Helpless on land. Females reach maturity at 18 months (800mm/32in) and bear 4-33 live young in February–May. Venom is 4 to 10 times more potent than cobra venom, and though bites are rare, fishermen are at risk from snakes that get tangled in their nets. In two cases fishermen died within two hours of being bitten. No antivenom serum available in India.

Distribution

Indian coasts. Also Pakistan, Bangladesh, Sri Lanka, and Indo-Pacific waters (Thailand, Malaysia, and Singapore).

Look-alikes

File Snake.
Other sea snakes.

ADULT - Mumbai coast, Maharashtra, India

Hook-nosed Sea Snake

Enhydrina schistosa

VENOMOUS, COMMON

At birth 150-280mm (6-11in); adult length 600-1100mm (24-43in); maximum 1580mm (62in)

Annulated Sea Snake

Hydrophis cyanocinctus

VENOMOUS, UNCOMMON

At birth 380mm (15in)
Adults 1220-1525mm (48-60in)
Maximum 1885mm (74in)

Description

Scales distinctly keeled. Head small, very slightly or not broader than neck; small eye has round black pupil ringed with yellow; hind body flattened; tail flat, oar-like. Color and markings variable. Olive-brown or yellowish back usually with 50-75 sooty black cross-bands (narrower on sides of body). Bands may form complete rings. Sides and belly pale yellow. Head black, dark or pale olive-brown; young often have curved yellow mark on top of head. Variations include: a black belly stripe or cross-bands only on neck and a stripe along back. Markings fade or almost entirely disappear with age.

Scalation/ Dentition (after Smith)

Scales in (25) 27-35 rows on neck; 37-47 rows on body (increase of 8-14). Scales imbricate, with a central keel and sometimes additional tubercles. Ventrals 290-390, small but distinct throughout length of belly; preanal scales enlarged. Supralabials 7 or 8, often broken up (2^{nd} touches prefrontal, 3^{rd} to 5^{th} or only 2^{nd} touching eye); preocular 1; postoculars 2; anterior temporals 1 or 2. A series of small scales at margin of mouth, after the 2nd or 3rd infralabial. 5 or 6 maxillary teeth behind poison fangs. This species shows considerable variation in head scalation and temporal shields cannot be relied upon to distinguish this species from *Hydrophis spiralis* (which has 34-54, narrower, dark bands and an increase of 4-8 scales from neck to midbody).

Natural History/ Behavior

Though usually found in shallow mangrove swamps or washed ashore, recorded swimming 12-20 miles from the coast. Able to crawl slowly on land (unlike most other sea snakes). Feeds on fish and eels. Bears 3-16 live young. Human fatalities from bites have been reported.

Distribution

India: coastline. Also coasts of Pakistan, Sri Lanka, Bangladesh, and Thailand; the Persian Gulf to Japan and the Indo-Australian archipelago. Rare south of the Equator.

Look-alikes

Other banded sea snakes.
File Snake.

ADULT - Kota Kinabalu

R. B. STEUBING

Annulated Sea Snake

Hydrophis cyanocinctus

VENOMOUS, UNCOMMON

At birth 380mm (15in); adults 1220-1525mm (48-60in); maximum 1885mm (74in)

Cochin Banded Sea Snake

Hydrophis ornatus

VENOMOUS, RARE

Maximum 950mm (37in)

Description

Body stout. Scales keeled. Head large and broad. Large eye has round pupil. Tail flat and oar-like. A series of broad gray or black, squarish cross-bands on the back separated by thin pale yellowish-white, gray or olive cross-lines. Cross-bands may end abruptly on sides of body, gradually taper towards belly or continue as faint lines around body. In rare cases, hind body ringed with entire broad bands, or has large, rounded markings on sides that alternate with those on back. Head blackish or olive with yellowish-white markings on snout and sides. Underside yellowish or whitish.

Scalation/ Dentition

Scales rows on neck: males 28-37, females 31-45. Body scales rows: males 33-45, females 39-55 (increase of 4-12). Scales six-sided, peg-like (especially on hindbody) with central knob-like keel (more developed in males). Ventrals distinct from adjacent scales: males 209-260, females 236-312. Supralabials 7 or 8 (2nd usually touching prefrontal; 3rd and 4th touching eye); preocular 1; postoculars: 2 or 3; anterior temporals 2. Maxillary teeth behind poison fangs 10-13.

Natural History/ Behavior

Active at night. Like most sea snakes, prefers shallow coastal waters. Swims well, but helpless on land. Sometimes stranded on beaches in stormy weather. Feeds on eels and small fish. Bears live young. Venom very toxic, human fatalities have been reported.

Distribution

India: coasts. Also Arabian Gulf to China, Australia, central Pacific (Kiribati), Tasmania and coasts of Papua New Guinea.

Look-alikes

Other banded sea snakes.
File Snake.

ADULT - Chennai coast, India

RW

Cochin Banded Sea Snake

Hydrophis ornatus

VENOMOUS, RARE

Maximum 950mm (37in)

Malacca Sea Snake — *Hydrophis caerulescens*

VENOMOUS, UNCOMMON — Maximum 1090mm (43in)

Description

Scales keeled. Head small; eye entirely black; hind body flattened; tail flat, oar-like. Broad, blue-gray rings or bands that may encircle the body; rest of body yellowish-white. Bands narrowest towards belly; broadest on back. Head black or dark gray, sometimes with yellowish or whitish mark behind eye. Young have a ∩ shaped yellowish or whitish mark on top of head. Tail black or gray. Bands less distinct in older snakes, some almost uniform gray above. Belly scales small but distinct throughout length of body.

Scalation/ Dentition (after Smith)

Scales in 31-43 rows on neck; 38-54 rows on body (increase of 6-14), scales on thickest part of body feebly imbricate and with truncate tips. Ventrals 253-334, distinct throughout length of belly. Supralabials 7-8 (2nd touching prefrontal; 3rd and 4th touching eye); preocular 1; postoculars 1 or 2; anterior temporals 2 or 3. 14-18 maxillary teeth behind poison fangs (rarely 13). This species shows considerable scale variation in different parts of its range.

Natural History/ Behavior

Swims well, helpless on land. Found in estuarine areas, mangroves or washed ashore. Feeds on fish including mudskippers. Bears 2-6 live young around July-August. Generally inoffensive, but will bite if provoked. Fatal bites have been reported.

Distribution

India: between Mumbai and Karwar on the west coast of India and from Chennai northwards to the mouth of the Ganges on the east coast. Though likely, a record from Gujarat needs confirmation. Also Pakistan, Bangladesh, China, Myanmar, Malaysia, Thailand to Australia (Gulf of Carpentaria, Queensland).

Look-alikes

Other banded sea snakes.

ADULT - Chennai coast, India

Malacca Sea Snake

Hydrophis caerulescens

VENOMOUS, UNCOMMON

Maximum 1090mm (43in)

Short Sea Snake

Lapemis curtus

VENOMOUS, UNCOMMON

At birth 250-355mm (10-14in)
Maximum 850mm (34in)

Description

Body short and stout. Large, blunt head not broader than neck. Tail flat, oar-like. Greenish-brown (olive) or gray with 44-55 narrow darker gray or black, ill-defined, cross-bands that taper to a point on each side of body (near belly). Bands often connected along midline of back. Some adults uniform gray above. Dark gray head, sometimes with curved yellow mark; tail black. Underside yellowish-white. Head black in young.

Scalation

Midbody scale rows: males 33-39, females 36-43. Scales six-, or four-sided; lower rows with one or two keels or a tubercle (strongly spinose in adult males). Ventrals: males 154-168, females 160-194. Supralabials 7 or 8 (3rd and 4th touching eye); preocular 1; postocular 1 or 2; anterior temporals 2, rarely 3. Nasals touch. Parietals broken up into irregular, small scales. Ventrals usually distinct throughout.

Natural History/ Behavior

Swims well, can crawl slowly on land. Found in shallow coastal waters and estuaries – one was found on land near backwaters 2.4km from the sea. Often caught in fishing nets. Feeds on a wide variety of fish including "gobies". Mating reported in early February. Bears 3-6 live young between March-August. Venom toxic, human fatalities reported.

Distribution

India: coastal waters (more common on the west coast). Also waters of the Persian Gulf and Southeast Asia, to Australia, New Guinea and New Caledonia.

Look-alikes

Other sea snakes.

ADULT - Uran coast, near Mumbai, Maharashtra, India

AMIT CHAVAN

Short Sea Snake

Lapemis curtus

VENOMOUS, UNCOMMON

At birth 250-355mm (10-14in); maximum 850mm (34in)

Large-headed Sea Snake

Astrotia stokesii

VENOMOUS, RARE

At birth 300mm (12in)
Maximum 1600mm (63in)

Description

The largest (but not the longest) sea snake known. Body short, extremely stout. Scales keeled, most with pointed tips. Large head broader than neck. Tail flat, oar-like. Yellowish, gray or pale brown, with broad, black or dark brown rings. Intermediate spots or cross-lines between bands sometimes present. Head dark olive, blackish or yellowish. In adults, belly scales toward hind body are divided and raised to form a keel.

Scalation

Scales 37-47 on neck, 47-59 on midbody; strongly imbricate, pointed, keeled or tubercled. Ventrals 226-286; leaf-shaped, with tooth-like (dentate) tips; a few anterior scales entire, others divided.

Natural History/ Behavior

Swims well; helpless on land. Though found in deep open water, not generally pelagic. Huge aggregations of thousands of these sea snakes have been sighted in the open sea. Also found close to shore. Females bear up to 12 young at a time. Venom very toxic.

Distribution

Indian waters: Bay of Bengal. Also Sri Lanka, Singapore, and Australia.

Look-alikes

Other banded sea snakes.

JUVENILE - Visayan Sea, Philippines

SHERMAN MINTON

Large-headed Sea Snake

Astrotia stokesii

VENOMOUS, RARE

At birth 300mm (12in); maximum 1600mm (63in)

Black and Yellow Sea Snake — *Pelamis platurus*

VENOMOUS, UNCOMMON

At birth 220-260mm (9-10in)
Adults 640-760mm (25-30in)
Maximum 980mm (39in)

Description

Head elongate, slightly broader than neck; eye entirely black; hind body strongly flattened; tail flat, oar-like. Head and body usually black or blue-black above; "canary yellow" on sides and underside. Edge between two colors mostly straight, but forms a wavy (sinuous) curve on hindbody. Tail white with large black spots. Marks on upper edge of tail alternate with those on lower edge. Variations include: black above, underside brown or yellow with a yellow stripe, black spots or black stripe on side of body. Sometimes pale brown, grayish or whitish with the dark color of back indistinct or altogether absent. When about to moult, the yellow may appear dark brown.

Scalation

Scales around thickest part of body 49-67; not imbricate, six- or four-sided, lower rows with two or three tubercles (most distinct in adult males). Ventrals 264-406, very small, sometimes divided by a median furrow. Head shields entire (not broken up); nostrils on upper surface of head; nasals touch. Supralabials 7 to 10 (3rd and 4th, or 5th below eye, usually separated from it by suboculars); preoculars 1 to 3; postoculars 2 or 3; anterior temporal 2 or 3, rarely 3.

Natural History/ Behavior

Found far out at sea (justifying its other common name – Pelagic Sea Snake), sometimes washed ashore. Helpless on land. A surface feeder; feeds on fish. Drifts like a stick, allowing small fish to take shelter under it. It then moves backward a bit and sideswipes, grabbing its prey. Bears 2-6 live young which can feed from the first day. Usually inoffensive when in the sea; known to bite if restrained or picked up. A bite victim in Sri Lanka died in 23 days.

Distribution

India: coastal waters and Andaman & Nicobar Islands. Also Pakistan, Bangladesh, Sri Lanka, Maldives, Thailand, south as far as Tasmania, north to southern Siberia, west coast of Africa, the Red Sea, east as far as the west coast of Central and South America, also the Galapagos Islands. The only sea snake that reaches the Americas.

Look-alikes

None, but "albinotic" (less pigmented) forms may resemble other sea snakes.

ADULT - Mamallapuram coast, Chennai district, Tamil Nadu, India

JENNIFER DALTRY

Black and Yellow Sea Snake

Pelamis platurus

VENOMOUS, UNCOMMON

At birth 220-260mm (9-10in); adults 640-760mm (25-30in); maximum 980mm (39in)

Russell's Viper

Daboia russelii

VENOMOUS, COMMON

At birth 240mm (10in)
Adults 1000mm (39in)
Maximum 1800mm (71in)

Description

Body stout, rough in appearance. Scales strongly keeled. Triangular head broader than neck; scales on upper surface of head small, strongly keeled; nostril very large. Eye has vertical pupil. Tail short, thin. Brown or yellowish-brown, with three longitudinal series of prominent, large brown or black oval or round spots. The "spots" may have pointed ends, may meet to form a chain-like pattern, or may have narrow white or cream margins. Top of head usually has narrow white Λ shaped mark and a pair of triangular/oval dark brown markings. Two dark triangular streaks behind and below eye. Lips scales mottled with brown. Underside white/speckled with crescent marks. A notable color variation seen in Mangalore – body almost uniform reddish-brown, with pattern very indistinct or altogether absent.

Scalation

Scales in 25-29 : 27-33 : 21-23 rows, strongly keeled; ventrals 153-180; subcaudals 41-64, paired. *Canthus rostralis* distinct; nostril very large; supranasal crescentic.

Natural History/ Behavior

Usually nocturnal. Found in open grassy areas, scrub jungle, forest edges, rocky hillocks, dense thorny hedgerows and in and around mangroves (Mumbai coast). Feeds on rodents, including the Indian Gerbil. Females bear 6-63 live young in May-July. When disturbed, hisses loudly, "like a pressure cooker" and only bites as a last resort. Though usually slow, capable of incredibly fast strikes. One of India's Big Four medically important snakes, they cause as many, or more, snakebites than cobras. Being heavy-bodied ambush hunters, they are more likely to stand their ground than other venomous snakes. Most people are bitten at night when they step on a viper. While usually not fatal, any Russell's Viper bite must be treated as quickly as possible with antivenom serum available in India.

Distribution

Throughout India. Also Pakistan, Nepal, Bhutan, Bangladesh, Sri Lanka, and parts of Southeast Asia (Myanmar, Thailand). Has been found 2756m (9040ft) above sea level.

Look-alikes

Indian Rock Python.
Common Sand Boa.

Russell's Viper

Daboia russelii

VENOMOUS, COMMON

At birth 240mm (10in); adults 1000mm (39in); maximum 1800mm (71in)

Russell's Viper

Daboia russelii

VENOMOUS, COMMON

At birth 240mm (10in); adults 1000mm (39in); maximum 1800mm (71in)

RW

ADULT - Mangalore, Karnataka, India

JUVENILE - Akurdi, Pune district, Maharashtra, India

Russell's Viper

Daboia russelii

VENOMOUS, COMMON

At birth 240mm (10in); adults 1000mm (39in); maximum 1800mm (71in)

Levantine Viper

*Macrovipera lebetina**

VENOMOUS, UNCOMMON

Adults 900-1200mm (35-47in)
Maximum 2140mm (84in)

Description

Body stout, rough in appearance. Scales strongly keeled. Triangular head distinctly broader than neck; scales on top of head small, strongly keeled. Head broader and shorter than Russell's Viper. Eye has vertical pupil. Tail short, thin. Dusty, yellowish-brown/gray above. Upper back has short, indistinct, usually rectangular, darker brown/gray cross-bars that alternate with a series of similar markings on sides of body. Markings on back may break up and alternate along indistinct vertebral stripe. Occasionally two indistinct V shaped markings on top of head; a broad dark streak from behind eye to angle of mouth and dark bar below eye often present. Underside off-white/pale brown with dark spots. Young more distinctly marked than adults.

Scalation

Scales keeled in 23 or 25 : 23 to 27 : 19 rows, keeled. Ventrals 162-179; subcaudals 40-51, paired. Scalation data of two specimens examined at the B.N.H.S. are included, as there is little scalation data on *M. lebetina* from India. Specimen S.2423 (locality "Kashmir"): scales in 25 : 25: 19 rows, keeled; ventrals 161; subcaudals 47, paired; supralabials 10 (L), 11 (R). Specimen S.2424 (locality Srinagar, Jammu & Kashmir): scales in 23 : 25 : 19 rows, keeled; ventrals 162; subcaudals 43, paired; supralabials 10 (L), 11 (R).

Natural History/ Behavior

Active by day and night – sometimes in rather cool weather. Though terrestrial, may ascend low bushes. Inhabits streambeds in dry, rocky, mountainous country. Feeds on small mammals, lizards, birds and their eggs. Some subspecies of the Levantine Viper are oviparous, others are ovoviviparous. It is not known whether Indian populations lay eggs or bear live young. If aroused, will hiss loudly. Slow-moving but capable of fast strikes. Toxic venom but no known fatalities here. Not much is known about the Levantine Viper in India.

Distribution

India: a few localities in Kashmir including Srinagar and Dachigam. Also Pakistan to Cyprus. In India, recorded between 900-2100m (2950-6890ft).

*Though referred to the subspecies *cernovi*, populations from Afghanistan, Pakistan and India might belong to a distinct taxon, for which the name *peilei* Murray, 1892 is available (David, Ananjeva, Das and Golubev, 1999).

Look-alikes

Russell's Viper.

ADULT - Dachigam, Jammu & Kashmir, India

Levantine Viper

Macrovipera lebetina

VENOMOUS, UNCOMMON

Adults 900-1200mm (35-47in); maximum 2140mm (84in)

Saw-scaled Viper

Echis carinatus

VENOMOUS, COMMON

At birth 80mm (3in)
Adults 300-500mm (12-20in, larger in northern part of range)
Maximum 800mm (32in)

Description

Body short, stout. Scales strongly keeled, rough in appearance. Head distinctly broader than neck; scales on upper surface of head small, strongly keeled. Large eye has vertical pupil. Tail very short, thin. Light, dark brown, brick-red, gray or sand-colored with zigzag patterns on back. Top of head has usually distinct, arrow-head mark. Underside white speckled with brown. Several different color forms exist. (Sochurek's Saw-scaled Viper *Echis carinatus sochureki/ E. sochureki* either merits subspecies status, or may be a separate species).

Scalation

Scales in 25 to 29 : 27 to 37 : 21 to 27 rows, strongly keeled. 4-7 lowest body scale rows (adjacent to ventrals) oblique, with serrated keels. Ventrals 132-185; entire; anal entire or divided; subcaudals 23-39, entire. Supralabials 10-12.

Natural History/ Behavior

Mainly nocturnal, will bask in the morning sun. Mostly found in open dry, sandy or rocky terrain in the plains and hills, and also in open, rocky regions of heavy rainfall. Rests under rocks, behind bark, at the base of thorny plants during the day. Climbs well. Frequents warm roads or paths at night. Moves fast by sidewinding. Feeds on mice, lizards, frogs, scorpions, and insects. Male combat observed. Bears 4-8 live young between April-August. Females may produce two clutches a year. In Maharashtra (Ratnagiri district) over 2000 Saw-scaled Vipers were recorded in one week (July). The same area was visited in December and not a single snake could be found. Hibernation or aestivation in laterite crevices may account for this dramatic disappearance. When alarmed, inflates lung and rubs saw-edged scales together to make a rasping sound. Quick to strike when provoked. Venom very toxic, one of India's Big Four; bites should be treated with antivenom serum.

Distribution

Saw-scaled Viper: throughout mainland India (very common in some places) except West Bengal and the Northeast. Also Pakistan, Sri Lanka. Reported up to 1500m (4920ft). (Sochurek's Saw-scaled Viper: Rajasthan and possibly Gujarat. Also Pakistan).

Look-alikes

Common Cat Snake.
Sand Boas.
Russell's Kukri Snake.
Sind Awl-headed Snake.

ADULT - Pune district, Maharashtra, India

Saw-scaled Viper

Echis carinatus carinatus

VENOMOUS, COMMON

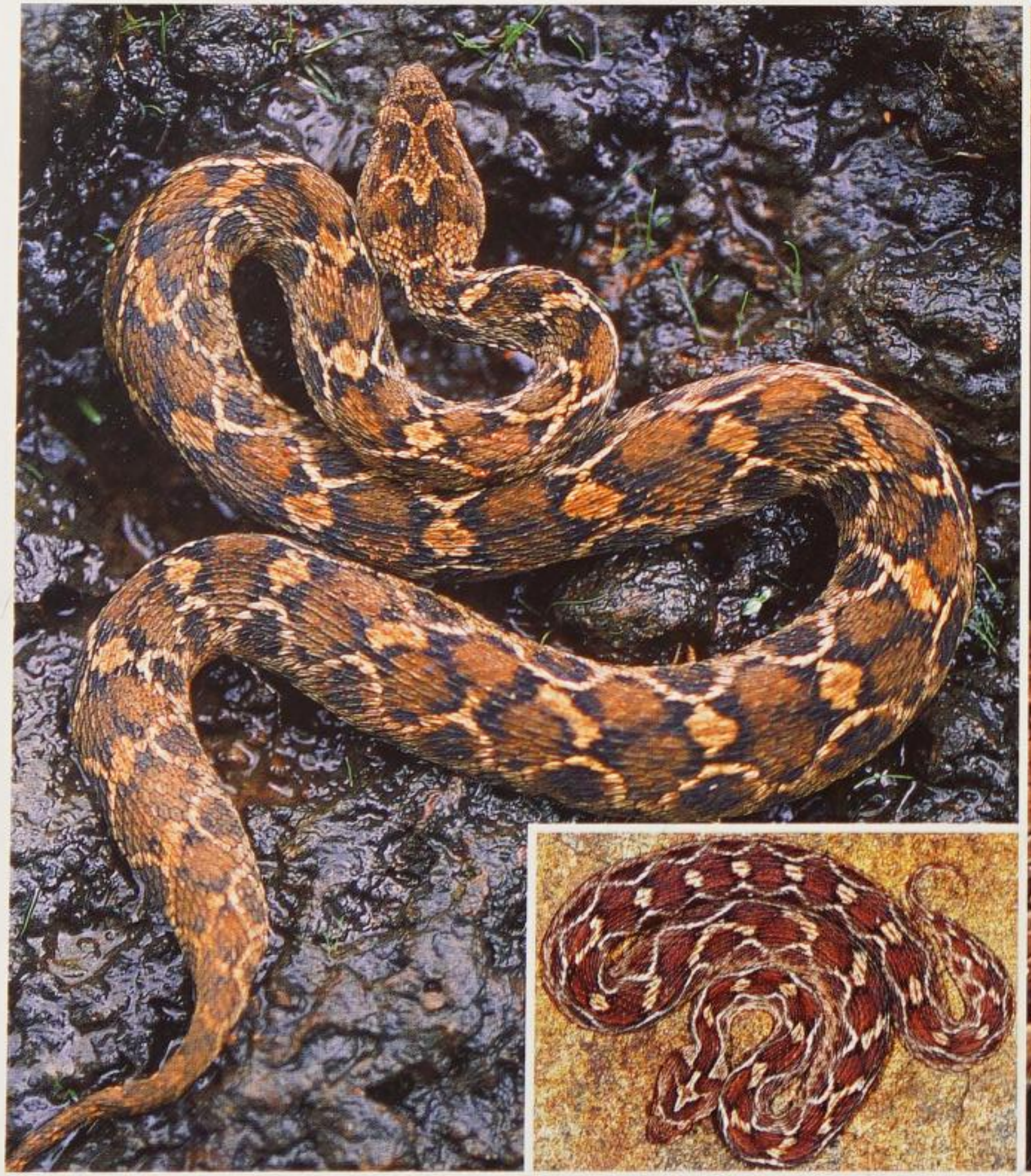
At birth 80mm (3in); adults 300-500mm (12-20in, larger in northern part of range); maximum 800mm (32in)

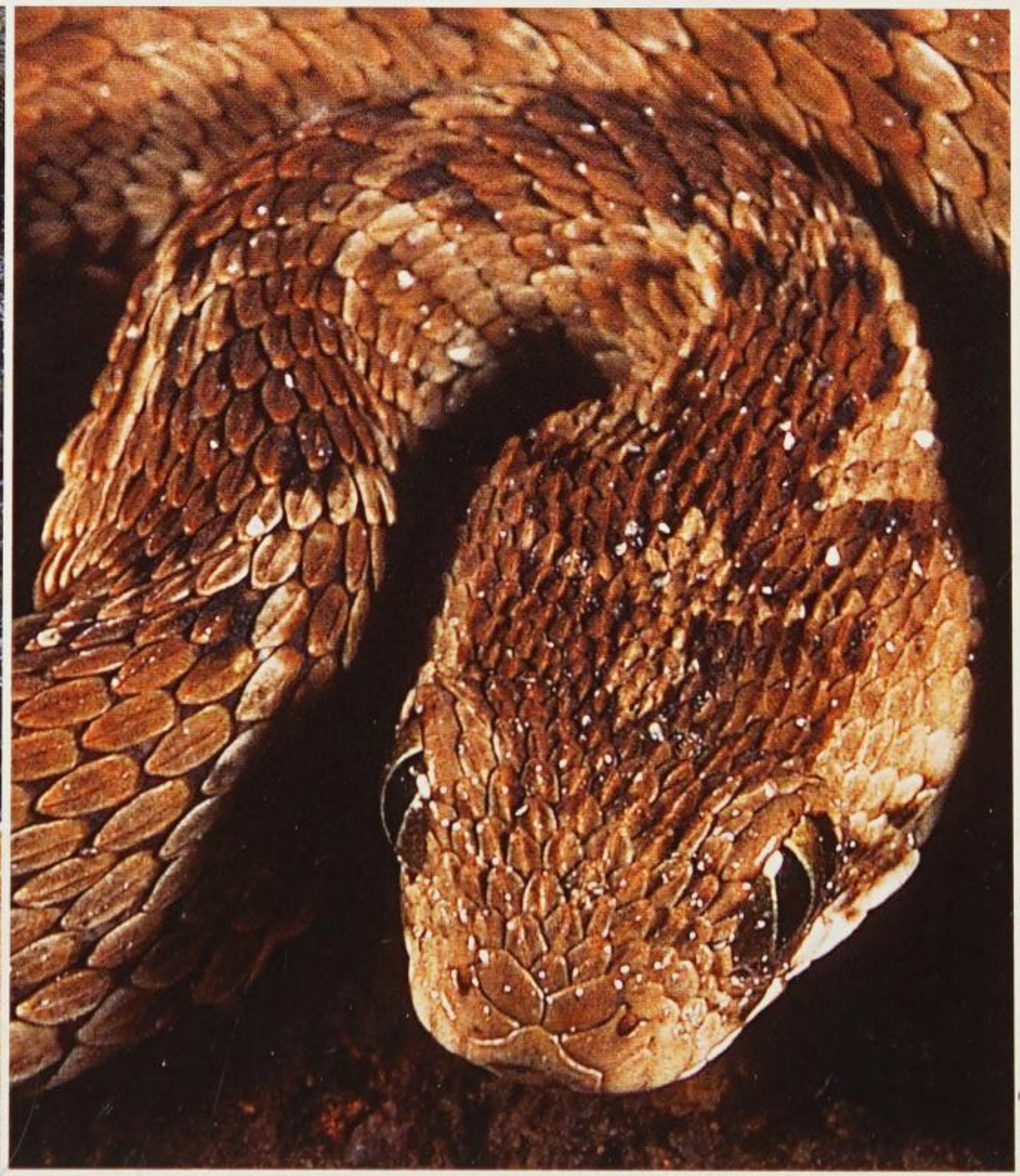
Saw-scaled Viper

Echis carinatus carinatus

VENOMOUS, COMMON

At birth 80mm (3in); adults 300-500mm (12-20in, larger in northern part of range); maximum 800mm (32in)





Left main: VARAD GIRI • Left inset and right: AC

ADULTS - Maharashtra, India • Left : Koyna • Right and inset Pune district

ADULT - Pakistan

WOLFGANG WÜSTER

Sochurek's Saw-scaled Viper

Echis carinatus sochureki

VENOMOUS, COMMON At birth 80mm (3in); adults 300-500mm (12-20in, larger in northern part of range); maximum 800mm (32in)

Himalayan Pit Viper

Gloydius himalayanus

VENOMOUS, COMMON IN PARTS OF RANGE

At birth 155-190mm (6-8in)
Adults 600mm (24in)
Maximum 864mm (34in)

Description

Scales strongly keeled. Triangular head distinctly broader than neck; scales on upper surface of head very large. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short. Dull brown or gray with dark blackish-brown spots or wavy cross-lines that are sometimes faint. Upper surface of head usually darker than body. Distinct angular edge around top of head. Dark line from eye to angle of mouth. Upper lip pale brown or cream spotted with dark brown. Underside gray or off-white, heavily marked with various shades of brown. A few other pit vipers have large upper head scales, but none have ranges that overlap that of the Himalayan Pit Viper.

Scalation (in part after Gumprecht)

Scales in 20-22 : 19-23: 15-17 rows, strongly keeled. Ventrals 140-175; anal entire; subcaudals 36-52, paired. Upper head scales large; *canthus rostralis* sharp; supraoculars broad; supralabials 5-7 (1st sometimes united with 2nd, last two extend into temporal region).

Natural History/ Behavior

A montane species. Usually seen in or near open conifer forests, and also recorded from near a glacier in Himachal Pradesh (Dharamshala) at 4877m (16,000ft) – the highest point any snake has ever been found. Has been seen under timber, boulders, and fallen pine needles, in clefts between rocks and walls of terraced fields, gardens, and sometimes hikers' tents. Feeds on mice, skinks and centipedes. Bears 5-7 live young in August-September. A quiet, timid snake, not likely to bite unless stepped on. When aroused, will flatten body, coil up, and vibrate tail vigorously. Slow, but capable of fast strikes. The venom is not particularly toxic, causing pain and swelling, but no fatalities have been reported.

Distribution

India: the western Himalayas – Kashmir, Himachal Pradesh, northern Punjab, Uttar Pradesh and Uttaranchal. Records from Sikkim need confirmation. Outside India: Pakistan and central Nepal. Records from eastern Afghanistan and Bangladesh need confirmation. Recorded between 1500-4877m (4920-16,000ft).

Look-alikes

Mountain Pit Viper.
Mock Viper.

ADULT - Kalatope-Khajjiar Wildlife Sanctuary, Dalhousie, Chamba district, Himachal Pradesh, India

SANJAY SONDHI

Himalayan Pit Viper

Gloydius himalayanus

VENOMOUS, COMMON IN PARTS OF RANGE

At birth 155-190mm (6-8in), adults 600mm (24in), maximum 864mm (34in)

Himalayan Pit Viper

Gloydius himalayanus

VENOMOUS, COMMON IN PARTS OF RANGE

At birth 155-190mm (6-8in), adults 600mm (24in), maximum 864mm (34in)

FRANK TILLACK

ADULT - Nepal

ADULT - Manali, Himachal Pradesh, India

Himalayan Pit Viper

Gloydius himalayamus

VENOMOUS, COMMON IN PARTS OF RANGE

At birth 155-190mm (6-8in), adults 600mm (24in), maximum 864mm (34in)

Hump-nosed Pit Viper

Hypnale hypnale

VENOMOUS, COMMON

At birth 125-160mm (5-6in)
Adults 285-375mm (11-15in)
Maximum 550 (22in)

Description

Scales smooth or weakly keeled. Flat, triangular head distinctly broader than neck; large scales on anterior upper surface of head. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short. Pale gray or reddish-brown above, densely peppered with tiny brown or black specks and large dark triangular, sometimes alternate, spots on each side. Additional smaller spots often present on sides of body. Neck may have two dark stripes. Top of head brown, separated from black side of head by a distinct pale yellow or white line. Tail tip yellowish/reddish-brown. Underside gray, yellow or brown with darker spots. The common name is misleading, as the snout tip is turned up very slightly.

Scalation

Scales in 17 (rarely 19) : 17 : 17 or 15 rows, upper rows feebly keeled. Ventrals: India 134-149; Sri Lanka 142-158. Subcaudals paired or some single: India 33-46; Sri Lanka 32-48. Supralabials 7 or 8. *Canthus rostralis* distinct.

Natural History/ Behavior

Nocturnal and terrestrial. Inhabits evergreen, moist and dry deciduous or secondary forest, also found in plantation areas. Often lies in a flat coil with only the head angled upwards on rocks near watercourses. Also seen under logs or dead leaves and sometimes on low bushes. Feeds on geckos, skinks, small rodents, reptile eggs and frogs. Juveniles wriggle tails to lure prey. Females bear 4-18 young in March-September. A captive bred individual lived more than 14 years. On provocation, some individuals in the wild have sprung off rocks (in an attempt to escape) while thrashing about and striking defensively in several directions; others may flatten body and vibrate tail tip. Venom seems to be quite toxic and bites may cause considerable swelling and pain. No fatalities reported in India.

Distribution

India: the Western Ghats as far north as Belgaum. Occurs from 300-600m (980-1970ft). Also Sri Lanka – from sea level to 1525m (5000ft).

Look-alikes

Kukri snakes.
Russell's Viper.

ADULT - Near Gudalur, Kerala-Tamil Nadu border, India

JENNIFER DALTRY

Hump-nosed Pit Viper

Hypnale hypnale

VENOMOUS, COMMON

At birth 125-160mm (5-6in); adults 285-375mm (11-15in); maximum 550 (22in)

Hump-nosed Pit Viper

Hypnale hypnale

VENOMOUS, COMMON

At birth 125-160mm (5-6in); adults 285-375mm (11-15in); maximum 550 (22in)

ADULTS - Top left: Kodagu, Karnataka, India • Bottom left: Castle Rock, Uttara Kannada district, Karnataka, India • Top right: Gudalur, Karnataka, India • Bottom right: Sri Lanka

Left: AC • Right top: JENNIFER DALTRY • Bottom right: WOLFGANG WÜSTER

ADULT - Castle Rock, Uttara Kannada district, Karnataka, India

SHOMEN MUKHERJEE

Hump-nosed Pit Viper

Hypnale hypnale

VENOMOUS, COMMON

At birth 125-160mm (5-6in); adults 285-375mm (11-15in); maximum 550 (22in)

Large-scaled Pit Viper

Trimeresurus macrolepis

VENOMOUS, COMMON

Maximum 580mm (23in)

Description

Scales strongly keeled. Triangular head distinctly broader than neck; scales on upper surface of head very large. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short, prehensile. Bright/dark green above; lip scales yellow or pale green; underside pale green. Skin between scales black. White or yellow line along lower side of body (outer-most scale row). Black or dark streak behind eye sometimes present. The only Indian pit viper which is green and has very large scales on top of head.

Scalation

Scales in 17 : 12-15 : 9 or 10 rows, keeled and strongly imbricate (overlapping). Lowest scale row has smallest scales of all body scale rows. Ventrals: males 133-140, females 135-143. Subcaudals: males 53-56, females 44-58; paired. Supralabials 7 or 8, first completely separated from nasal; single row of scales between supralabials and elongate subocular. Upper head scales very large, smooth, strongly imbricate; supraoculars very large, entire, separated by 1 large, or rarely 3 scales (1 large scale with a small one on each side); internasals large, touching or separated from each other by a small scale. Two rows of large temporal scales, smooth or feebly keeled.

Natural History/ Behavior

Nocturnal. Mostly arboreal. May sit on the same fern or branch for weeks with little movement. Feeds on frogs and rodents that it catches by ambush. Slow but capable of fast strikes. Common on tea bushes and cardamom plants in plantations where it causes many bites. Fortunately, the venom is not very toxic; bites result in local pain and swelling which usually subsides in 24-48 hours.

Distribution

Endemic to India. Known from a few localities in South India: Tamil Nadu (Nilgiri, Palni, Shevaroy, Ashambu, High Wavy, Anamalai, and Nelliampatti Hills); also central Kerala at altitudes ranging from 610-2134m (2000-7000ft).

Look-alikes

Other green pit vipers.
Green Keelback.
Vine snakes.

ADULT - Kalakad-Mundanthurai, Tamil Nadu, India

K. JAYARAM

Large-scaled Pit Viper

Trimeresurus macrolepis

VENOMOUS, COMMON

Maximum 580mm (23in)

Large-scaled Pit Viper

Trimeresurus macrolepis

VENOMOUS, COMMON

Maximum 580mm (23in)

RW

ADULT - Palni Hills, Tamil Nadu, India

ADULT - Palni Hills, Tamil Nadu, India

Large-scaled Pit Viper

Trimeresurus macrolepis

VENOMOUS, COMMON

Maximum 580mm (23in)

Mountain Pit Viper

Ovophis monticola

VENOMOUS, COMMON

At hatching 180-200mm (7-8in)
Maximum 1250mm (49in)

Description

Body short and stout. Scales smooth or weakly keeled. Triangular head distinctly broader than neck; scales on upper surface of head small and smooth. Small eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short and very thin. Brown back, with a series of large squarish, dark brown blotches and smaller ones on sides. Top and sides of head dark brown; pale brown streak behind eye. Disruptive coloration on side of head camouflages eye. Underside pale, lightly or heavily mottled with brown.

Scalation

Scales smooth or keeled in 23 or 25 : 23 or 25 (rarely 27 or 21) : 19 or 21 rows. Ventrals 127-176 (127-165 in those examined from eastern Arunachal Pradesh); anal entire; subcaudals 35-62, usually paired, or some or all single. Scales on top of head small, unequal, smooth, feebly imbricate; supraoculars usually large and entire, 5-9 scales between them; internasals large, usually separated by 1 or 2 scales. First supralabial completely separated from nasal, 7-10 supralabials; 2-4 series of small scales between them and eye; subocular usually broken up into small scales (other sympatric pit vipers have an entire, elongate subocular). Body scales in 21-27 : 21-26 : 16-21 rows in other parts of range.

Natural History/ Behavior

Mainly nocturnal, terrestrial. Feeds on frogs and small rodents. Lays 5-18 eggs in a hole or under leaf litter (most South Asian pit vipers bear live young). Females known to guard eggs. When disturbed, the Mountain Pit Viper will flatten its body, form a defensive coil, and strike repeatedly. Slow but capable of fast strikes. Little is known about its venom. Bites cause much pain, swelling, and continuous bleeding. In one case, an elderly woman died from a bite.

Distribution

India: Uttaranchal, Sikkim, West Bengal, Assam, Manipur, Meghalaya, Nagaland to eastern Arunachal Pradesh. Also China, Tibet, Nepal, Myanmar and Bangladesh.

Look-alikes

Himalayan Pit Viper.

ADULT - Near Gandhigram, Changlang district, Arunachal Pradesh, India

Mountain Pit Viper

Ovophis monticola

VENOMOUS, COMMON

At hatching 180-200mm (7-8in); maximum 1250mm (49in)

Jerdon's Pit Viper

Protobothrops jerdonii

VENOMOUS, RARE

At birth 180-230mm (7-9in)
Maximum 990mm (39in)

Description

Scales keeled. Triangular head distinctly broader than neck; scales on upper surface of head small, smooth. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short, prehensile. Adults and juveniles differently colored, but distinctive head and body markings aid identification. Adults: forebody greenish-yellow or olive with a series of large, irregular reddish-brown spots bordered with black. Sides of body with similar smaller spots. Hind body and tail almost entirely black. Top of head black with a symmetrical yellow pattern. Bold black/brown streak behind each eye. Lip scales yellow, some separated by black or brown marks. Underside yellow or green, marked with black. Juveniles: yellow, with a similar dark brown pattern and whitish-yellow tail-tip.

Scalation

Scales in 21 or 23 : 21 (rarely 23) : 15 or 17 rows, strongly keeled. Individuals from Myanmar and Yunnan – ventrals: males 164-173, females 167-189. Subcaudals paired: males 50-55 (69); females 44-61. Those from Myanmar-Tibet border – ventrals: males 181-188; females 184-193. Subcaudals paired: males 67-78, females 64-76. One found in eastern Arunachal Pradesh had 182 ventrals and 72 paired subcaudals. Upper head scales small. Supraoculars large, broad, entire, 6-9 scales on a line between them; 1-3 large scales between them and large internasals. Supralabials 7 or 8, first completely separated from the nasal. Temporal scales smooth, those above supralabials larger than others. Usually a series of small scales between elongate subocular and supralabials.

Natural History/ Behavior

Nocturnal. A montane species. Terrestrial. Seen in forests, "scrub woods", banks of small streams, and grassy patches. Feeds on ground-nesting birds and small rodents. Females bear 4-8 live young in August-September. Slow but capable of fast strikes.

Distribution

India: the Northeast from Meghalaya to Arunachal Pradesh from about 1370-2700m (4500-8860ft). Also China, Tibet, and Myanmar. A single record from Nepal needs confirmation.

Look-alikes

None.

JUVENILE - Near Vijoynagar, Changlang district, Arunachal Pradesh, India

Jerdon's Pit Viper

Protobothrops jerdonii

VENOMOUS, RARE

At birth 180-230mm (7-9in); maximum 990mm (39in)

Malabar Pit Viper

Trimeresurus malabaricus

VENOMOUS, COMMON

Adults 550-790mm (22-31in)
Maximum 1050mm (41in)

Description

Triangular head broader than neck; scales on top of head small, smooth. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short, prehensile. Typically, green, olive or brown back with prominent brown/black spots that may join to form a faint/bold zigzag pattern. There may be scattered yellow spots along sides. Dark streak sometimes present behind eye. Underside pale green, yellow or grayish-white with scattered brown and yellow markings. Tail black and yellow in predominantly brown form. Variations include black and yellow mosaic pattern and a reddish-brown (sometimes almost maroon) form. Most forms have a pair of kidney-shaped marks on back of head, which may be obscure in darker-colored forms. Young pale/dark brown with indistinct darker brown pattern on back and paler tail tip.

Scalation

Scales in 21 or 23 : 21 (rarely 19) : 15 or 17 rows, weakly keeled. Ventrals: males 143-158, females 136-159. Anal entire. Subcaudals paired: males 50-63, females 44-54. Upper head scales small, unequal, smooth or obtusely keeled, strongly imbricate; supraoculars transversely divided or their inner margins indented by adjacent scales, 7-9 scales on a line between them; internasals large, usually touching. Supralabials 9 or 10, first completely separated from nasal; single row of scales between supralabials and elongate subocular. Temporal scales smooth or obtusely keeled.

Natural History/ Behavior

Nocturnal, also seen by day in the monsoons. Found in hill forests on low bushes and trees, or on rocks – often near stream edges/pools. Adults also found on roots exposed by mud "road-cuttings" in forest areas. Young almost invariably on bushes, stems. Slow but capable of fast strikes. Captive adults fed on mice, frogs and geckos. A captive adult ate a juvenile on two occasions. Venom seems to mild, causing moderate pain and swelling which subsidies in a day or two.

Distribution

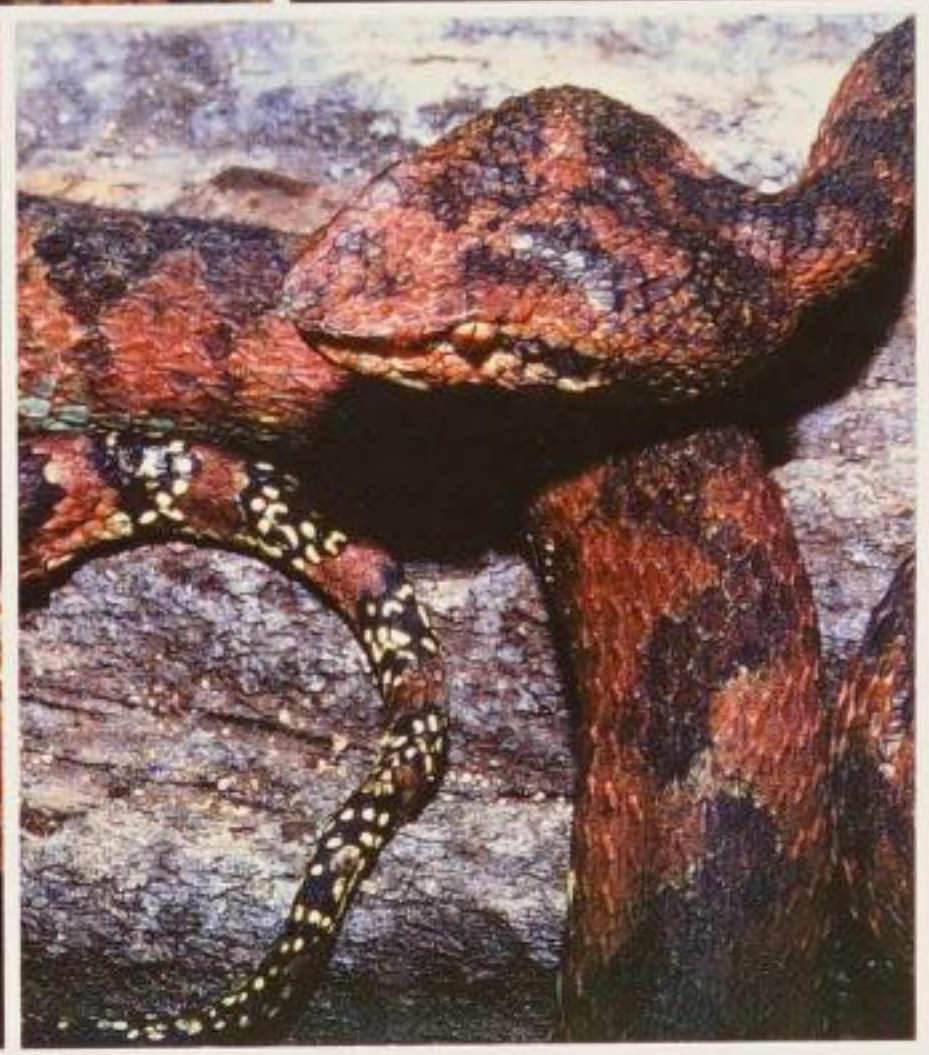
Endemic to India. The Western Ghats from Maharashtra (Mahableshwar) south to Kanyakumari in suitably wet and cool forests at altitudes varying from 610-2134m (2000-7000ft). Not widespread, but reasonably common in range.

Look-alikes

Other green pit vipers.

ADULTS - Top and bottom left: Koyna, Satara distr., Maharashtra • Top right: Castle Rock, Karnataka • Middle: Amboli, Sindhudurg distr., Maharashtra • Bottom right: Mangalore, Karnataka

All AC except Bottom right: RW



Malabar Pit Viper

Trimeresurus malabaricus

VENOMOUS, COMMON

Adults 550-790 mm (22-31in); maximum 1050mm (41in)

Malabar Pit Viper

Trimeresurus malabaricus

VENOMOUS, COMMON

Adults 550-790 mm (22-31in); maximum 1050mm (41in)

ADULT - Amboli, Sindhudurg district, Maharashtra, India

Top left: ADULT (Premoult) - Amboli, Sindhudurg district • Top right: JUVENILE - Koyna, Satara district, both Maharashtra, India • Bottom: JUVENILES - Valparai, Tamil Nadu, India

Bottom: S.U. Saravanakumar • Top: AC

Malabar Pit Viper

Trimeresurus malabaricus

VENOMOUS, COMMON

Adults 550-790 mm (22-31in); maximum 1050mm (41in)

Horseshoe Pit Viper

Trimeresurus strigatus

VENOMOUS, UNCOMMON

Adults 360-400mm (14-16in)
Maximum 480mm (19in)

Description

Upper body scales weakly keeled. Triangular head distinctly broader than neck; scales on upper surface of head small and smooth. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short, slightly prehensile. Brown or grayish-brown back with large, distinct/indistinct, squarish dark-edged brown spots. Those on middle of back may join to form a zigzag stripe. Smaller spots on sides of body. Usually has distinct, pale brown, yellowish, or whitish ∩ shaped mark (horseshoe-shaped) on neck. Dark stripe behind eye. Underside whitish or yellowish, densely marked with brown. Tail tip yellowish.

Scalation

Scales in 21 (rarely 19) : 21 (rarely 23) : 15 (rarely 17) rows, upper scales weakly keeled. Ventrals: males 135-144, females 131-142. Anal entire. Subcaudals paired: males 35-42, females 32-35. Upper head scales small, more or less equal, smooth; supraoculars narrow, inner margins indented by adjacent scales; 8 or 9 scales on a line between supraoculars; internasals usually not distinguishable from adjacent scales. Supralabials 8 or 9 (rarely 10), first completely separated from the nasal; second supralabial separated from scale forming anterior border of pit; single row of scales between supralabials and elongate subocular. An aberrant specimen from Coonoor had the second supralabial united with the anterior pit scale.

Natural History/ Behavior

Nocturnal and probably terrestrial. Found in and around hill forests and sholas. Adults feed on small mice; juveniles prey on frogs and occasionally smaller snakes. Slow but capable of fast strikes. An old English naturalist, who was bitten by one, "speedily applied a ligature" and "suffered no ill-effects other than have the skin round the bite blacken in a minute or two, detach itself, and come off in his mouth during suction". Nothing else is known about the venom.

Distribution

Endemic to India. Southern Western Ghats (Nilgiri, Anamalai, Shevaroy, Palni and Ashambu Hills). Precise localities include: Silent Valley, Coonoor, Udhagamandalam (Ootacamund/Ooty), Mukurti Peak in Tamil Nadu and Ponmudi in Kerala. Found between 915-2400m (3000-7870ft).

Look-alikes

Other pit vipers.
Cat snakes.

ADULT - Near Mukurti Peak, Udhagamandalam, Tamil Nadu, India

RAMANA ATHREYA

Horseshoe Pit Viper

Trimeresurus strigatus

VENOMOUS, UNCOMMON

Adults 360-400mm (14-16in); maximum 480mm (19in)

Bamboo Pit Viper

Trimeresurus gramineus

VENOMOUS, COMMON

At birth 160 mm (6in)
Adults 400mm (16in)
Maximum 1135mm (45in)

Description

Scales smooth or upper rows weakly keeled. Triangular head distinctly broader than neck; scales on upper surface of head small. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short, prehensile. Usually grass green above, occasionally yellow or olive brown, sometimes with a usually faint, blackish-brown, uneven pattern. Lip scales and underside yellow, white or pale green. A dark streak may be present behind eye.

Scalation

Scales in 21 : 21 : 15 rows, smooth, or upper rows weakly keeled. Ventrals: males 145-175, females 164-177. Anal entire. Subcaudals: males 55-71, females 57-62; paired. Upper head scales small, more or less equal, subimbricate, smooth; supraoculars narrow, entire, 8-11 scales on a line between them; internasals separated by 1 or 2 small scales. Supralabials 10-12, first completely separated from nasal; 2 rows of scales between supralabials and elongate subocular. Temporal scales small, smooth. Juvenile found in Maharashtra on 2nd June 2000 had 21 : 21 : 15 scale rows; ventrals 169 (147-149 – umbilical scar); anal entire; subcaudals 57, paired. Scales between supraoculars 9; supralabials 12; scales below elongate subocular and supralabials in two rows; preoculars 3; postoculars 2.

Natural History/ Behavior

Nocturnal, Usually found in hill forests; a few populations are found near sea level. Found on low bushes, often near stream edges. In the dry season may stay in the same bush for two months for more. During the monsoons, we have seen them on the ground at night hunting frogs. Feeds on frogs, lizards, small birds like sunbirds, and small rodents. Females bear 4-15 young in June-July. When alarmed, may vibrate tail rapidly. Slow but capable of fast strikes. Bites cause pain and swelling; a bite to the head caused severe local symptoms for several days.

Distribution

Endemic to India. Western Ghats – the northernmost limit probably being the Dangs in Gujarat. Occurs in the Eastern Ghats, including the Shevaroy, and Javadi Hills. Usually found above 450m (1480ft). Also recorded from near sea level at Tamil Nadu (Gingee) and Maharashtra (Phansad, Borivali National Park).

Look-alikes

Other green pit vipers.
Green Keelback.

ADULTS - Near Lonavla • Inset: near Mulshi • Both Pune district, Maharashtra, India

Bamboo Pit Viper

Trimeresurus gramineus

VENOMOUS, COMMON

At birth 160 mm (6in); adults 400mm (16in); maximum 1135mm (45in)

Bamboo Pit Viper

Trimeresurus gramineus

VENOMOUS, COMMON

At birth 160 mm (6in); adults 400mm (16in); maximum 1135mm (45in)

ADULT - Near Mulshi, Pune district, Maharashtra, India

AC

ADULT - Near Mulshi, Pune district, Maharashtra, India

Bamboo Pit Viper *Trimeresurus gramineus*

VENOMOUS, COMMON At birth 160 mm (6in); adults 400mm (16in); maximum 1135mm (45in)

Medo Pit Viper

Trimeresurus medoensis

VENOMOUS, RARE

Maximum 677mm (27in)

Description

Scales smooth or weakly keeled. Triangular head distinctly broader than neck; scales on upper surface of head small and smooth. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short, very strongly prehensile. Top of head and body dark "bamboo-leaf" green with dark blue skin between scales; lip and belly scales "paddy field" green – the two shades separated by a red (below) and white (above) stripe. Eye yellowish green with black pupil. No postocular streaks in either sex. Tongue pale brown or black. Tail more or less entirely rusty reddish-brown above, green below. A recently described species (1997).

Scalation

Scales in 17 (rarely 21, 20, 19 or 18) : 17 : 13 rows, smooth or with obtuse keels. Ventrals 138-149; anal entire; subcaudals 52-66, most paired. Scales between broad supraoculars 7-11 (rarely 6). Supralabials 8 or 9 (rarely 7), first supralabial completely separated from undivided nasal. Temporal scales smooth.

Natural History/ Behavior

Nocturnal. Inhabits wet montane forests. Often found resting by day in bamboo thickets. Primarily arboreal snakes, sometimes seen at night on the ground looking for frogs and mice. Chinese specimens were found on a path in the day. In Arunachal Pradesh, hibernates in upright dead bamboo from late November to about May. Females bear live young. Juveniles more defensive than adults. Slow but capable of fast strikes. Bites cause pain and swelling for several days, but no deaths reported.

Distribution

India: presently known from a single location in Arunachal Pradesh (near Gandhigram village, Changlang district). Also southern China and Upper Myanmar. Found between 1000-1400m (3280-4590ft).

Look-alikes

Other green pit vipers.
Green Cat Snake.

ADULT - Near Gandhigram, Changlang district, Arunachal Pradesh, India

Medo Pit Viper

Trimeresurus medoensis

VENOMOUS, RARE

Maximum 677mm (27in)

Pope's Pit Viper

Trimeresurus popeiorum popeiorum

VENOMOUS, UNCOMMON

At birth 120-200mm (5-8in)
Maximum 1050mm (41in)

Description

Scales keeled. Triangular head broader than neck; scales on upper surface of head small, smooth. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short, prehensile. Head and body uniform dark green. Interscale skin dark or turquoise blue. Males with narrow white (or white above, dark red below) stripe on lower side of body. Stripe behind eye – dark red above, white below. Side of head below eye and underside yellowish or bright green. Tip of tail reddish-brown in adults; grayish-brown in juveniles. To identify this species with certainty, male hemipenes must be examined – each is long, slender, forked, and without spines. (In other "look-alike" green pit vipers *Trimeresurus yunnanensis* and *Trimeresurus gumprechti*, the hemipenis is short, forked and has large basal spines). Taxonomists are of the opinion that Pope's Pit Viper is a species complex that will in future, be split into several more subspecies/species.

Scalation/ Hemipenis (after Smith)

Indian specimens. Scales in 21 (rarely 23) : 21 : 15 rows, obtusely keeled. Ventrals (6 males from India) 165-170; anal entire; subcaudals 60-70, paired. Upper head scales small, subimbricate, smooth; supraoculars narrow, sometimes transversely divided, 10-13 scales on a line between them; internasals small, elongate, slightly larger than adjacent scales, separated by one or two scales. Supralabials 9-11, first completely separated from nasal; single row of scales between elongate subocular and supralabials. Temporal scales small, sometimes strongly keeled. Hemipenis long (extending to 25th or 26th subcaudal), slender, forked; without spines.

Natural History/ Behavior

Nocturnal. Mostly a montane species. Usually seen on low bushes, shrubs, sometimes near watercourses on the ground. Feeds on small mammals, birds, lizards, and frogs. Females bear up to 15 young between April-May. Slow but capable of fast strikes. Little is known about its venom. Bites cause pain and swelling, and while rarely serious, a bite from a large snake could be lethal.

Distribution

India: Sikkim, Meghalaya (Khasi Hills), West Bengal (Darjeeling, Jalpaiguri district). Also Myanmar, Thailand, Malaysia, Singapore, Laos.

Look-alikes

Other green pit vipers.
Green Cat Snake.

ADULT MALE - Chiang Mai province, Thailand (1650m altitude)

ANDREAS GUMPRECHT

Pope's Pit Viper

Trimeresurus popeiorum popeiorum

VENOMOUS, UNCOMMON

At birth 120-200mm (5-8in); maximum 1050mm (41in)

Pope's Pit Viper

Trimeresurus popeiorum popeiorum

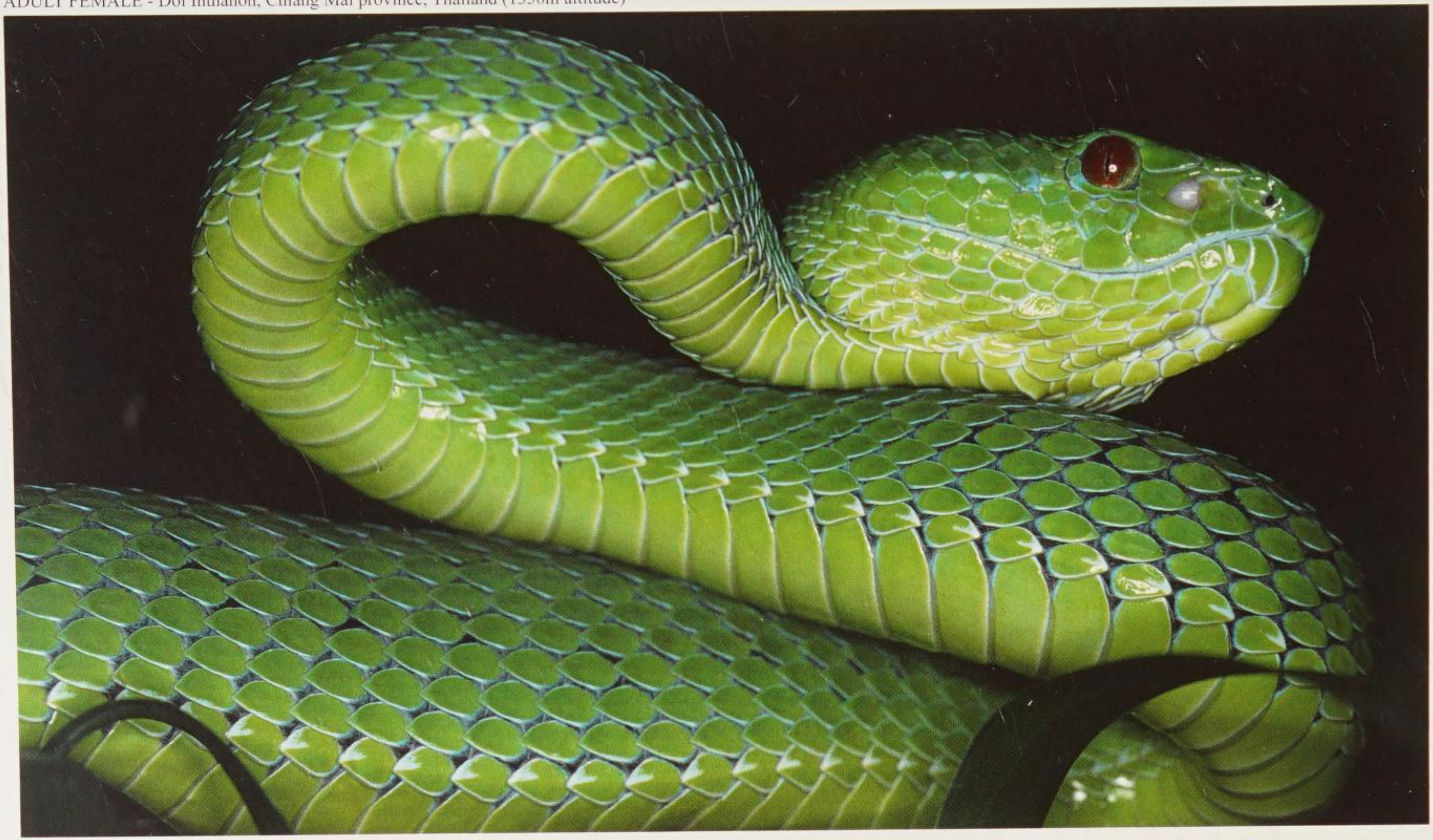
VENOMOUS, COMMON

At birth 120-200mm (5-8in); maximum 1050mm (41in)

ADULT MALE - Samoeng forest, Doi Suthep/ Doi Pui National Park, Chiang Mai province, Thailand

ANDREAS GUMPRECHT

ADULT FEMALE - Doi Inthanon, Chiang Mai province, Thailand (1350m altitude)



ANDREAS GUMPRECHT

Pope's Pit Viper

Trimeresurus popeiorum popeiorum

VENOMOUS, UNCOMMON

At birth 120-200mm (5-8in); maximum 1050mm (41in)

Cantor's Pit Viper

Trimeresurus cantori

VENOMOUS, COMMON

Maximum 1150mm (45in)

Description

Scales smooth or weakly keeled. Triangular head broader than neck; scales on upper surface of head small. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short, prehensile. Variations include: (i) Olive, pale yellowish-brown or "milk-tea" brown above, with indistinct, dark cross-bands or zigzag markings which consist of several closely spaced, dark-edged scales. This form usually has a broad white line from snout tip (or pit) that passes below eye to angle of mouth and a narrow stripe on lower side of body from neck to beginning of tail. Pattern may fade with age. Underside pale brown, whitish or greenish; scales on underside of tail thickly spotted with brown. (ii) Dark purplish-brown back, sometimes with lighter brown cross-bands – some of which expand on lower sides to enclose triangular dark brown patches. Belly paler or whitish with dark brown outer edges. (iii) Predominantly olive or light brown with several scales partially or completely yellowish, greenish or whitish; sometimes with a light stripe on lower side of body. Underside paler, occasionally spotted with brown. Presently all forms considered to be a single variable species.

Irrespective of color and/or pattern, Cantor's Pit Viper usually has keeled upper body scale rows. In addition, the upper head scales are distinctly speckled (there are several scattered, entirely dark scales and entirely light-colored scales). These are useful field characters to distinguish it from the Nicobar Pit Viper (in which all body scale rows are smooth and the top of the head is almost uniform in color – there may be a few indistinct dark scales).

Scalation

Scales in 27 or 29 : 27 to 31 : 17 to 21 rows, smooth or weakly keeled. Ventrals: males 171-177, females 172-182. Anal usually entire. Subcaudals paired: males 67-76, females 56-74. Upper head scales small, smooth or obtusely keeled; supraoculars narrow, entire, 13-16 scales on a line between them; internasals larger than adjacent scales on upper surface of head, usually separated by a single scale. Supralabials 11-13, the first partially or entirely united with nasal; two rows of scales between elongate subocular and supralabials. Temporal scales smooth or obtusely keeled.

Natural History/ Behavior

Poorly known. Nocturnal. Seen on the forest floor, near fresh water streams, low bushes, and near human habitation. Probably feeds on small rodents, frogs, and lizards. Bears live young. Bites are usually not serious, but a fatality was recorded on Kamorta Island in 1995.

JUVENILE - Payaka Basti, near Champion village, Nancowry Group, Central Nicobar Islands, India

SAMEER GHODKE

Cantor's Pit Viper

Trimeresurus cantori

VENOMOUS, COMMON

Maximum 1150mm (45in)

Cantor's Pit Viper

Trimeresurus cantori

VENOMOUS, COMMON

Maximum 1150mm (45in)

Distribution

Endemic to India. Only found on the Central Nicobar group of islands. A single record from the Andaman Islands needs confirmation.

Look-alikes

Nicobar Pit Viper.
Cat snakes.

ADULTS - Payaka Basti, near Champion village, Nancowry Group, Central Nicobar Islands, India

SAMEER GHODKE

Cantor's Pit Viper

Trimeresurus cantori

VENOMOUS, COMMON

Maximum 1150mm (45in)

Cantor's Pit Viper

Trimeresurus cantori

VENOMOUS, COMMON

Maximum 1150mm (45in)

SAMEER GHODKE

ADULT - Payaka Basti, near Champion village, Nancowry Group, Central Nicobar Islands, India

ADULTS - Payaka Basti, near Champion village, Nancowry Group, Central Nicobar Islands, India

SAMEER GHODKE

Cantor's Pit Viper

Trimeresurus cantori

VENOMOUS, COMMON

Maximum 1150mm (45in)

Cantor's Pit Viper

Trimeresurus cantori

VENOMOUS, COMMON

Maximum 1150mm (45in)

SAMEER GHODKE

ADULT - Payaka Basti, near Champion village, Nancowry Group, Central Nicobar Islands, India

ADULTS - Payaka Basti, near Champion village, Nancowry Group, Central Nicobar Islands, India

SAMEER GHODKE

Cantor's Pit Viper

Trimeresurus cantori

VENOMOUS, COMMON

Maximum 1150mm (45in)

Andaman Pit Viper

Trimeresurus andersoni

VENOMOUS, COMMON

At birth 140mm (6in)
Maximum 1100mm (43in)

Description

Scales strongly keeled. Triangular head distinctly broader than neck; scales on upper surface of head small, flat, and smooth. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short, prehensile. Variations include: (i) Olive, "milk-tea" brown or yellow back, boldly marked with a darker "coffee bean" brown, mosaic-like pattern. Markings distinct throughout. Lip and belly scales pale yellowish-brown. Underside has large, dark brown squarish marks. Tail has darker spots, both above and below. (ii) Uniform yellowish-brown or gray back, occasionally with an indistinct pattern or a few solitary, widely scattered, dark brown or black-edged scales. Lip and belly scales white or pale yellowish-brown. Underside sometimes has faint squarish marks. Tail has indistinct spots, both above and below. (iii) Dark purplish-, or brownish-, black above and below. Underside has bold, white or pale yellow bars – some of which are seen on sides of body. Bars are incomplete and alternate or form cross-bands that occupy one or more entire belly scales. Most scales on top of head are uniform in shape and size; they are also distinctly smaller than the upper body scales. (The look-alike Andaman Cat Snake has upper head scales that differ in shape and size).

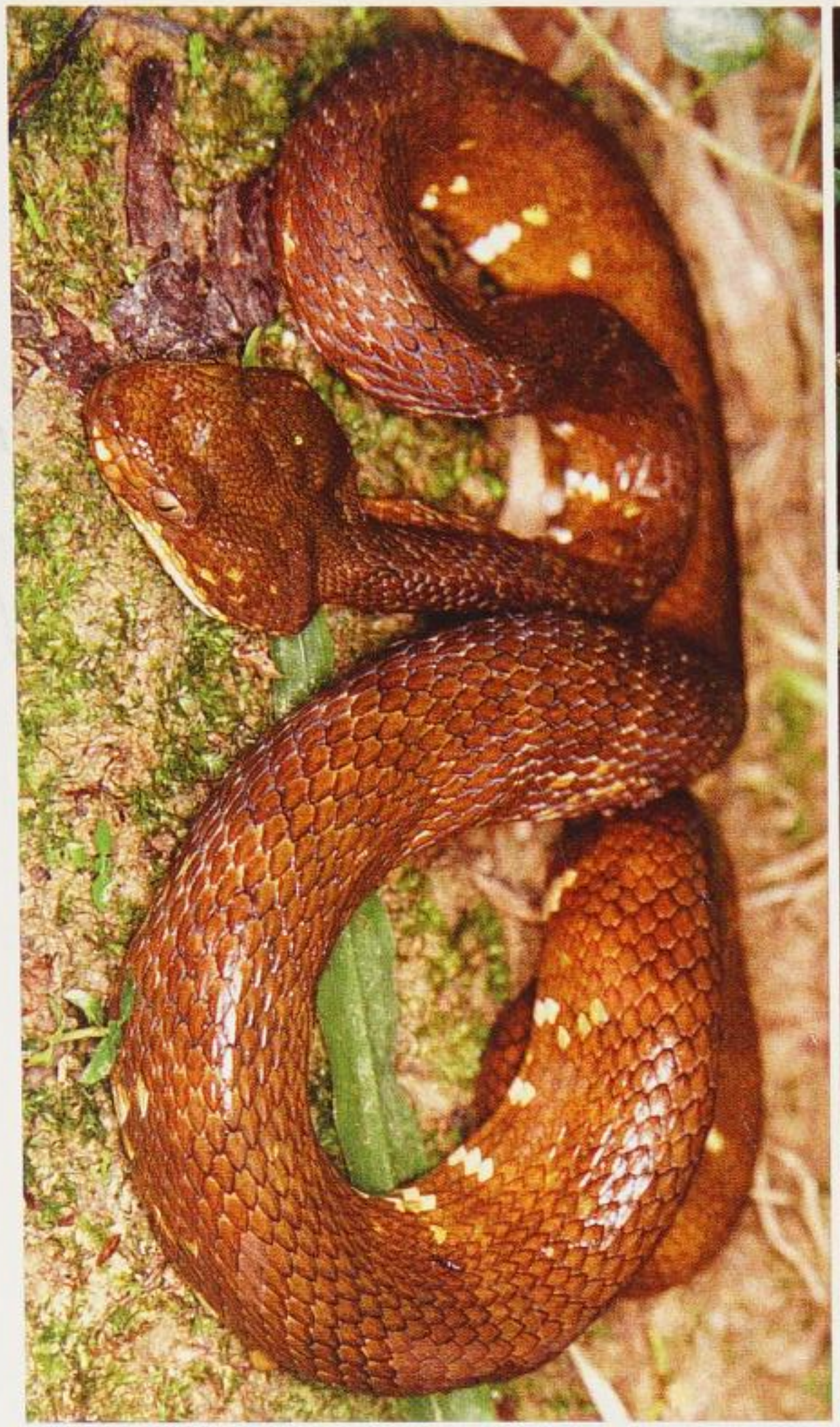
Scalation (after Regenass and Kramer)

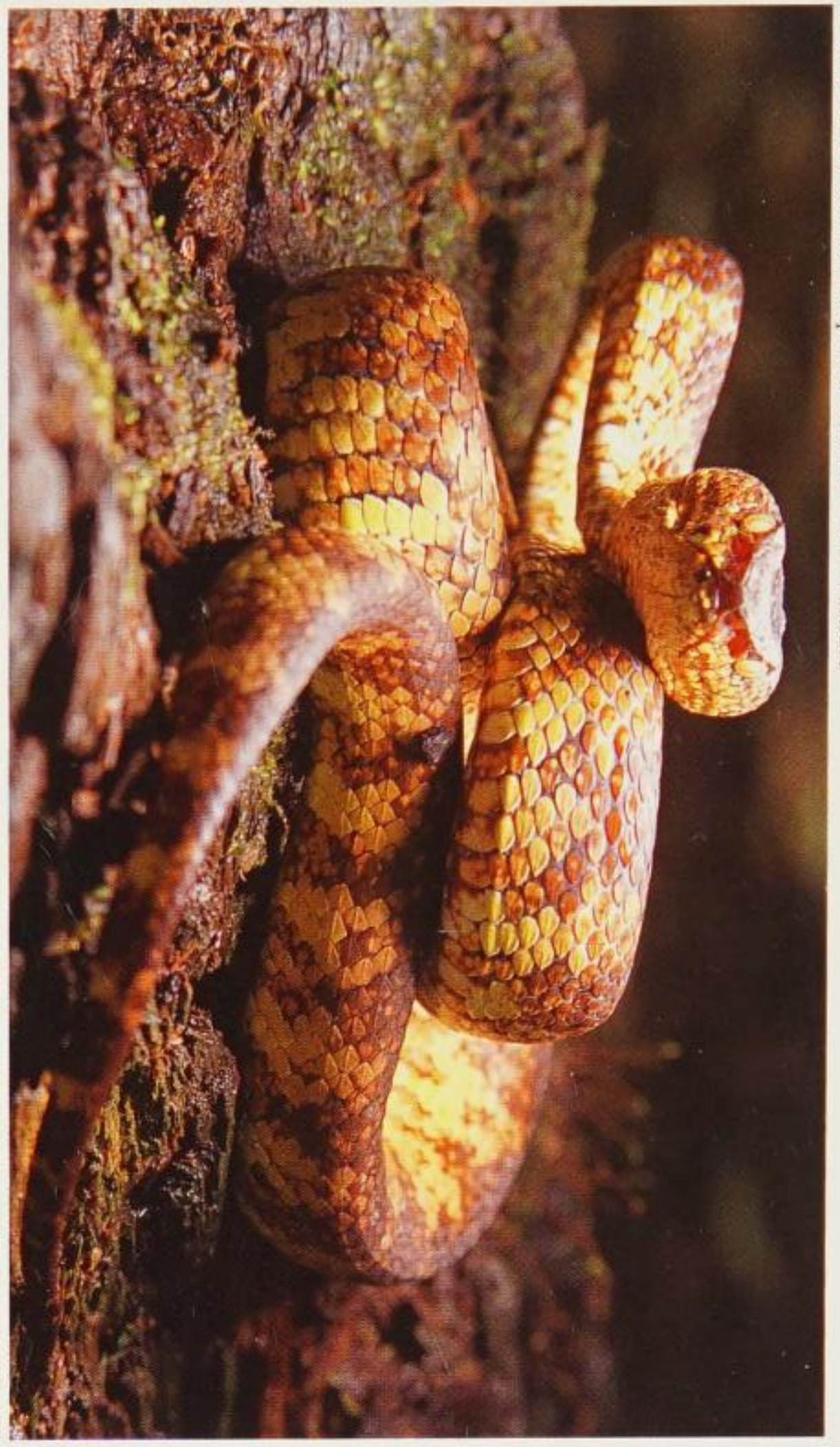
Scales in 23 or 25 : 23 or 25 (rarely 21) : 17 or 19 rows, keeled. Ventrals: males 170-182, females 172-185. Anal usually entire. Subcaudals paired: males 66-78, females 50-62. Upper head scales small; supraoculars entire (never broken up), broader than adjacent scales, 9-12 scales on a line between them; internasals larger than adjacent scales on upper surface of head, usually separated by single scale. Supralabials 10-12, first partly or completely fused with nasal; two or three rows of small scales between elongate subocular and supralabials. Temporal scales keeled or almost smooth.

Natural History/ Behavior

Nocturnal. Seen on paths, crossing roads on rainy nights, the forest floor, and on low bushes. Feeds on small rodents, frogs and occasionally geckos. A uniform yellowish-brown female from near Port Blair gave birth to five young in April, after 10 months in captivity. The young varied from uniform dark brown to blotched and speckled patterns of light brown; they readily ate small paddy frogs. While sluggish and generally reluctant to bite, at night they are alert and will bite if prodded or stepped on. Capable of fast strikes. No deaths have been reported from the bite, which can cause pain, swelling and some times necrosis (dry gangrene). There is no antivenom serum, but since venom toxicity is low, recovery is rapid unless useless "first aid" measures (like cutting, sucking, tight tourniquet) are tried.

ADULTS - A.N.E.T. Base, North Wandoor, South Andaman Island, India





SAMEER GHODKE Top and bottom • RW Middle

Andaman Pit Viper

Trimeresurus andersoni

VENOMOUS, COMMON

At birth 140mm (6in); maximum 1100mm (43in)

Andaman Pit Viper

Trimeresurus andersoni

VENOMOUS, COMMON

At birth 140mm (6in)
Maximum 1100mm (43in)

Distribution

Endemic to India. Only found on the Andaman Islands (common) and Car Nicobar Island (one was found in 1937).

Look-alikes

Andaman Cat Snake.

ADULT - South Andaman Island, India

SAMEER GHODKE

Andaman Pit Viper

Trimeresurus andersoni

VENOMOUS, COMMON

At birth 140mm (6in); maximum 1100mm (43in)

Andaman Pit Viper

Trimeresurus andersoni

VENOMOUS, COMMON

At birth 140mm (6in); maximum 1100mm (43in)

SAMEER GHODKE

ADULT - North Wandoor, South Andaman Island, India

ADULTS - Top: Near Webbi village, Mayabunder, Middle Andaman Island, India • Bottom: A.N.E.T. Base, North Wandoor, South Andaman Island, India

SAMEER GHODKE

Andaman Pit Viper

Trimeresurus andersoni

VENOMOUS, COMMON

At birth 140mm (6in); maximum 1100mm (43in)

Spot-tailed Pit Viper

Trimeresurus erythrurus

VENOMOUS, UNCOMMON

At birth 230-260mm (9-10in)
Maximum 1050mm (41in)

Description

Scales strongly keeled. Triangular head distinctly broader than neck. Scales on upper anterior surface of head small and bead-like (as opposed to flat and smooth); those on posterior upper surface of head, keeled. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short, prehensile. Head and body uniform dark "bamboo-leaf" green; side of head below eye yellow or pale green. Males with narrow white stripe on lower side of body from behind eye to base of tail; indistinct stripe sometimes present in females. Underside pale-, or yellowish-green. Tail tip usually spotted with brown (as opposed to being entirely reddish-brown).

Scalation (after Regenass and Kramer)

Scales in 23 or 25 : 23 or 25 : 17 or 19 rows, strongly keeled. Ventrals: males 156-165, females 151-174. Anal entire. Subcaudals paired, or a few entire: males 62-79, females 51-67. Upper head scales small, tuberculate; supraoculars narrow, entire, 11-14 scales on a line between them; internasals distinctly larger than adjacent scales on upper surface of head, touching, or separated by a scale. Supralabials 9-13, first partly or entirely united with nasal; one or two rows of scales between elongate subocular and supralabials. Temporal scales small, strongly keeled.

Natural History/ Behavior

Poorly known. Mostly nocturnal. Arboreal. Feeds on small mammals, birds, lizards, and frogs. Females larger than males. Bears live young. Venom unknown but a bite from a large snake could be serious.

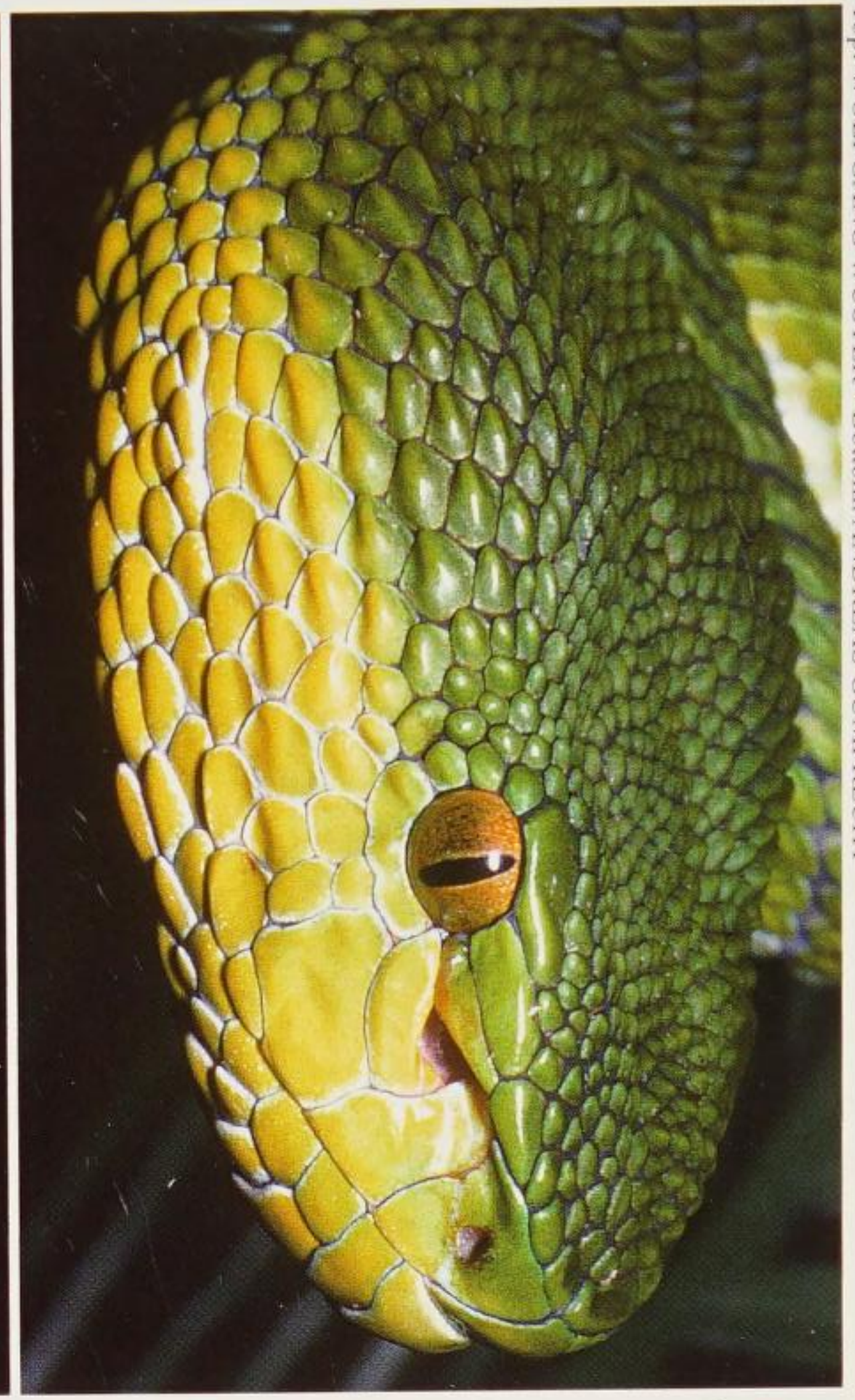
Distribution

India: Sikkim, Nagaland, West Bengal, and probably more states in the Northeast. Records from Mizoram and Meghalaya need confirmation. Also Bangladesh and Myanmar. Records from Nepal and Bhutan need confirmation.

Look-alikes

Other green pit vipers
Green Cat Snake.

ADULT MALE - Bottom and inset of tail: Yangon, Myanmar • Top: Myanmar



Top: WOLFGANG WÜSTER • Bottom: ANDREAS GUMPRECHT

Spot-tailed Pit Viper

Trimeresurus erythrurus

VENOMOUS, UNCOMMON

At birth 230-260mm (9-10in); maximum 1050mm (41in)

White-lipped Pit Viper

Trimeresurus albolabris

VENOMOUS, UNCOMMON

At birth 120-180mm (5-7in)
Maximum >1000mm (39in)

Description

Stout-bodied. Scales smooth or weakly keeled. Triangular head distinctly broader than neck; snout rounded; eye has vertical pupil; heat sensitive pit between nostril and eye. Tail short. Scales on upper surface of head flat (as opposed to bead-like), small and smooth. Top of head and body various shades of green; males usually darker than females. Males have narrow white stripe (sometimes bordered below by a thin red or reddish-brown line) on lower side of body. In females stripe absent, indistinct or distinct. Males also usually have additional white line below eye, along side of head. Area below eye and lip scales yellow, pale green or blue-green. Lip scale edges bordering mouth narrowly lined with white. Common name misleading as no snakes are entirely "white-lipped". Eye yellow, yellowish-brown, pale red, orange or blood-red. Tail with continuous reddish-brown mark (as opposed to spotted with brown); strongly prehensile. Underside glossy – pale green, yellowish, bluish or whitish. Several taxonomists are of the opinion that the White-lipped Pit Viper is a species complex that will be separated into several species (and subspecies) in future.

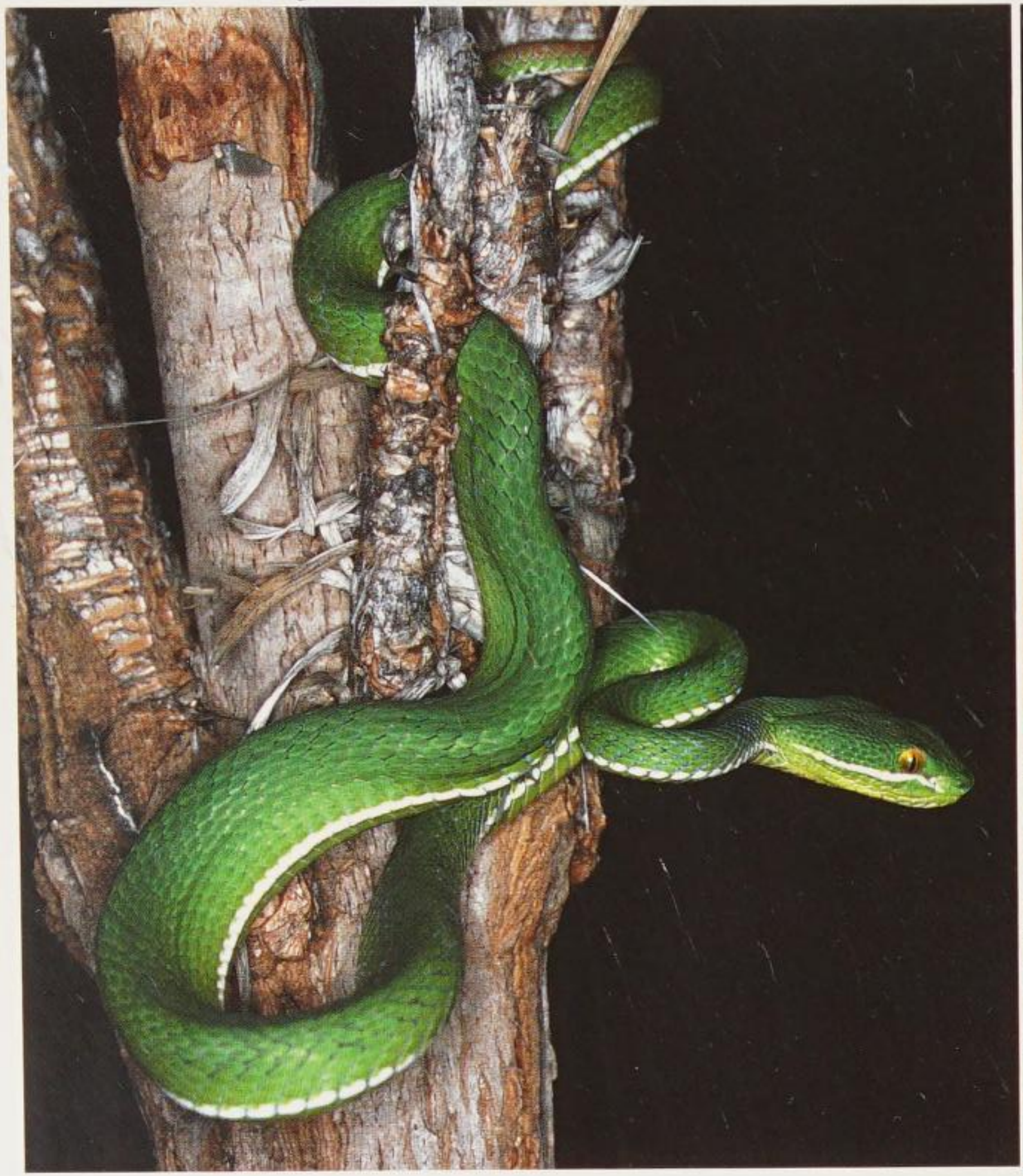
Scalation (after David and Vogel)
Scales in 21 or 23 rows at midbody, keeled. Ventrals 149-173; anal usually entire; subcaudals 48-78, paired. Upper head scales small, smooth; supraoculars narrow, sometimes large, 8-12 scales on a line between them; internasals distinctly larger than adjacent scales on upper surface of head, touching, or separated by a scale. Supralabials 7-13, the first almost entirely united with the nasal; one or two rows of scales between elongate subocular and supralabials. Temporal scales smooth or weakly keeled.

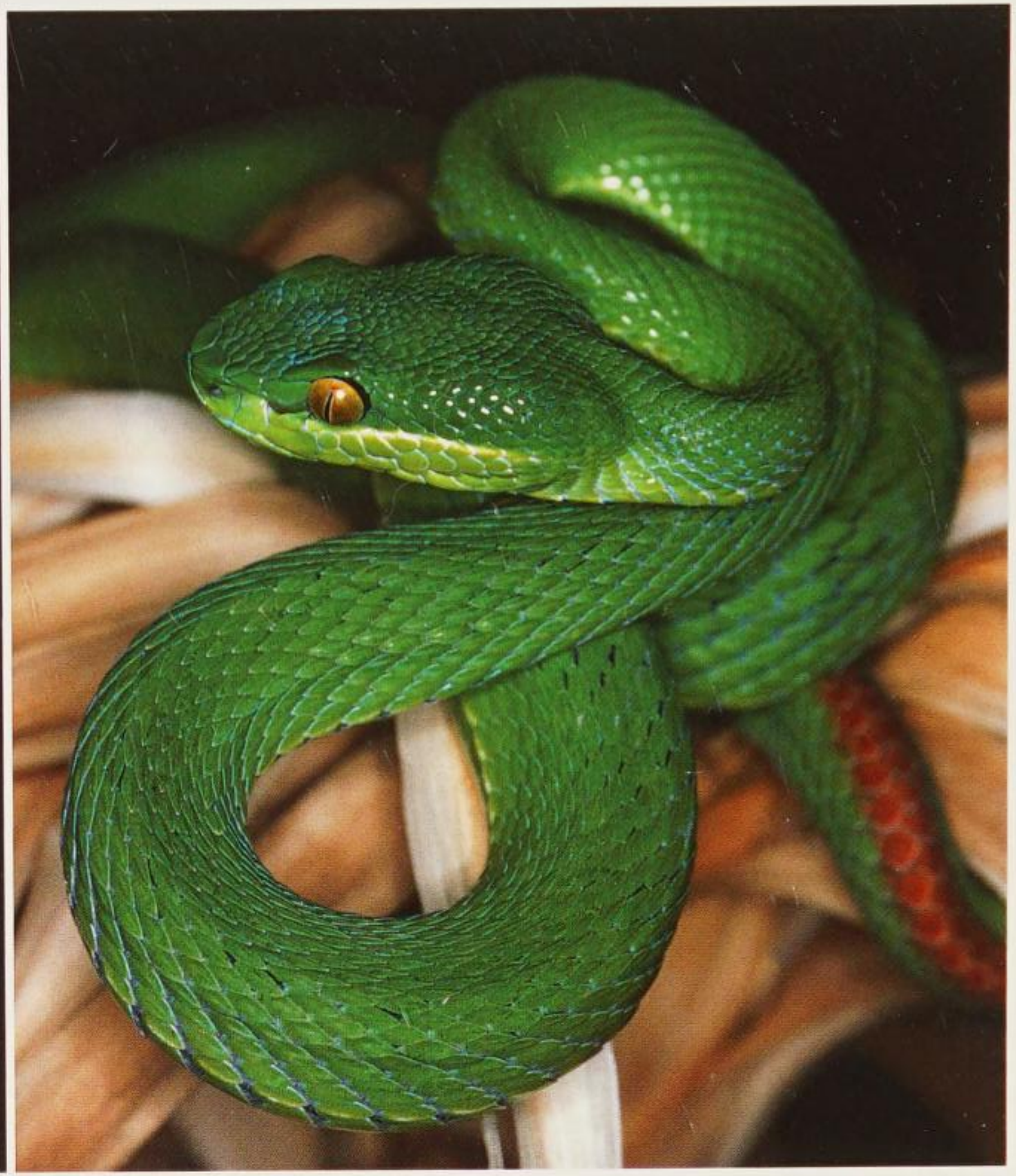
Currently, taxonomists are of the opinion that this species is not found in the Andaman & Nicobar Islands. However a young herpetologist recently recorded green pit vipers with scalation matching that of this species from the Nicobars. There are also old records of three males and three females from Car Nicobar with no stripe along the side body. Instead they had a stripe along the sides of the tail – which was grey below. A detailed study is needed before assigning the Nicobar population to this species.

Natural History/ Behavior

Nocturnal. Mostly arboreal. Found in forested areas, tea plantations and around human habitation. Descends to the ground at night to hunt frogs, lizards, and small mammals. Also feeds on small birds. Females bear 7-16 live young that resemble adults. Slow, but capable of fast strikes. Bites cause swelling and pain; a bite from a large snake could be serious or even fatal.

ADULT MALE - Phu Luang, Loei, Thailand (850m altitude)





ANDREAS GUMPRECHT

White-lipped Pit Viper

Trimeresurus albolabris

VENOMOUS, COMMON

At birth 120-180mm (5-7in); maximum >1000mm (39in)

White-lipped Pit Viper

Trimeresurus albolabris

VENOMOUS, UNCOMMON

At birth 120-180mm (5-7in)
Maximum >1000mm (39in)

Distribution

India: West Bengal (Darjeeling); Assam (Dibrugarh). An old record from Nagpur is doubtful and needs confirmation. Also China, Bangladesh, Myanmar, Macao, Taiwan, Laos, Vietnam, Thailand, Indonesia and Cambodia. Records for Nepal and Malaysia and need confirmation.

Look-alikes

Other green pit vipers.
Green Cat Snake.

ADULT FEMALE - Phu Luang, Loei, Thailand (850m altitude)

ANDREAS GUMPRECHT

White-lipped Pit Viper

Trimeresurus albolabris

VENOMOUS, UNCOMMON

At birth 120-180mm (5-7in); maximum >1000mm (39in)

Nicobar Pit Viper

Trimeresurus labialis

VENOMOUS, COMMON

Maximum 440mm (17in)

Description

Scales smooth. Triangular head distinctly broader than neck; scales on upper surface of head small and smooth. Eye has vertical pupil. Heat sensitive pit between nostril and eye. Tail short, prehensile. Color and pattern extremely variable. Light or dark brown with: (i) Small dark brown spots arranged across body. (ii) Small pale spots widely spread, both on back and underside. (iii) Pale cross-lines that meet or alternate on midback. (iv) Large, squarish, dark brown spots on back and similar colored stripe on each side of body. Some snakes have white line on side of head from tip of snout, below eye onto neck. Irrespective of color and/or pattern, the Nicobar Pit Viper has all body scale rows smooth and top of the head almost uniform in color (there may be a few indistinct dark scales). These are useful field characters to distinguish it from Cantor's Pit Viper (which usually has keeled upper body scale rows and distinctly speckled upper head scales).

Scalation

Scales in 21 or 23 : 21 or 23 : 15 or 17 rows, smooth. Ventrals: males 158-170, females 154-174. Anal usually entire. Subcaudals usually paired: males 60-65, females 46-57. Upper head scales small, smooth; supraoculars narrow, entire, 8-11 scales on a line between them; internasals larger than adjacent scales on upper surface of head, touching, or separated by one scale. Supralabials 10 or 11, first usually entirely united with nasal; single row of scales between elongate subocular and supralabials. Temporal scales smooth.

Natural History/ Behavior

Poorly known. Nocturnal. Seen on forest floor, low bushes near fresh water streams, and near human habitation. Probably eats frogs, lizards and mice. Bears live young. Nothing is known about its venom. The bite from a large snake could be serious.

Distribution

Endemic to India. Found only on the Nicobar Islands. A single record from the Andaman Islands needs confirmation.

Look-alikes

Other pit vipers.
Cat snakes.

ADULTS - Top and bottom left: Atkona Hills, Kachal Island • Bottom right: Payaka Basti, near Champion village. All Nancowry Group, Central Nicobar Island, India

SAMEER GHODKE

Nicobar Pit Viper

Trimeresurus labialis

VENOMOUS, COMMON

Maximum 440mm (17in)

Nicobar Pit Viper

Trimeresurus labialis

VENOMOUS, COMMON

Maximum 440mm (17in)

JUVENILES - Payaka Basti, near Champion village, Nancowry Group, Central Nicobar Island, India

SAMEER GHODKE

JUVENILE - Payaka Basti, near Champion village, Nancowry Group, Central Nicobar Island, India

SAMEER GHODKE

Nicobar Pit Viper

Trimeresurus labialis

VENOMOUS, COMMON

Maximum 440mm (17in)

INDEX TO COMMON NAMES

A

Afro-Asian Sand Snake 308
Andaman Cat Snake 290
Andaman Cobra 378
Andaman Keelback 226
Andaman Krait 358
Andaman Pit Viper 454
Annulated Sea Snake 392
Ashambu Shieldtail 74

B

Bamboo Pit Viper 436
Banded Krait 352
Banded Racer 138
Banded Trinket Snake 120
Barred Wolf Snake 198
Beaked Worm Snake 52
Beddome's Cat Snake 288
Beddome's Keelback 242
Beddome's Worm Snake 50
Black-headed Royal Snake 146
Black-tailed Trinket Snake 108
Black and Yellow Sea Snake 402
Black Krait 360
Brahminy Worm Snake 46
Bridal Snake 208
Brown Vine Snake 332
Burmese Python 80

C

Cantor's Pit Viper 446
Central Asian Cobra 382
Ceylon Cat Snake 286
Checkered Keelback 222
Cherrapunji Keelback 220
Cochin Banded Sea Snake 394
Collared Black-headed Snake 210
Common Cat Snake 282
Common Bronzeback Tree Snake 184
Common Krait 354
Common Trinket Snake 110
Common Kukri Snake 168

Common Sand Boa 84
Common Smooth-scaled Water Snake 336
Common Vine Snake 328
Common Wolf Snake 202
Condanarus Sand Snake 312
Copper-headed Trinket Snake 106
Crab-eating Watersnake 348

D

Darjeeling Snail-eater 94
Diard's Worm Snake 48
Dog-faced Water Snake 340
Duméril's Black-headed Snake 212

E

Eastern Cat Snake 284
Eastern Cliff Racer 136
Eastern Trinket Snake 118
Elliot's Shieldtail 62
Eyed Cat Snake 300

F

False Cobra 250
File Snake 96
Forsten's Cat Snake 302

G

Glossy-bellied Racer 134
Glossy Marsh Snake 344
Green Bronzeback Tree Snake 178
Green Cat Snake 294
Green Keelback 256
Green Rat Snake 130
Green Trinket Snake 98
Günther's Narrow-headed Snake 274
Günther's Stripe-necked Snake 152
Günther's Vine Snake 322

H

Hill Keelback 246
Himalayan Keelback 230
Himalayan Mountain Keelback 238
Himalayan Pit Viper 414
Himalayan Trinket Snake 116

Hook-nosed Sea Snake 390
Horseshoe Pit Viper 434
Hump-nosed Pit Viper 418

I

Indian Rat Snake 124
Indian Rock Python 78
Indian Smooth Snake 156
Indo-Chinese Rat Snake 128
Iridescent Snake 268

J

Jerdon's Pit Viper 428
Jerdon's Sea Snake 388

K

Khasi Hills Keelback 218
Khasi Hills Trinket Snake 100
King Cobra 384

L

Laotian Wolf Snake 194
Large-eyed Bronzeback Tree Snake 182
Large-headed Sea Snake 400
Large-scaled Pit Viper 422
Large-scaled Shieldtail 64
Large-spotted Cat Snake 276
Leith's Sand Snake 316
Levantine Viper 408

M

Macclelland's Coral Snake 370
Mahableshwar Shieldtail 68
Malabar Pit Viper 430
Malacca Sea Snake 396
Mandarin Trinket Snake 122
Many-banded Cat Snake 296
Medo Pit Viper 440
Mock Viper 318
Monocled Cobra 376
Montane Trinket Snake 112
Mountain Pit Viper 426

N

Nicobar Cat Snake 306
Nicobar Pit Viper 466
Nikhil's Kukri Snake 172

O

Olive Forest Snake 264
Olive Keelback 260
Olive Oriental Slender Snake 262
Oriental Wolf Snake 204
Ornate Flying Snake 188

P

Painted Bronzeback Tree Snake 174
Paradise Flying Snake 190
Periyar Shieldtail 70
Perrotet's Shieldtail 60
Phipson's Shieldtail 72
Pied-belly Shieldtail 54
Plumbeous Smooth-scaled Water Snake 334
Pope's Pit Viper 442

R

Red-necked Keelback 232
Red-spotted Royal Snake 150
Red-tailed Trinket Snake 104
Red Sand Boa 86
Reticulated Python 82
Russell's Kukri Snake 162
Russell's Viper 404

S

Saw-scaled Viper 410
Short-nosed Vine Snake 324
Short Sea Snake 398
Siebold's Smooth-scaled Water Snake 338
Sind Awl-headed Snake 154
Slender Coral Snake 364
Slender Racer 142
Spectacled Cobra 372
Spot-tailed Pit Viper 460
St. John's Keelback Water Snake 224
Stout Sand Snake 314
Striped Coral Snake 366
Striped Keelback 234

Striped Narrow-headed Snake 272
Striped Trinket Snake 114
Sunbeam Snake 76

T

Tawny Cat Snake 280
Travancore Wolf Snake 192
Triangle-spotted Keelback 228

V

Venning's Keelback 214

W

Wall's Shieldtail 58
Wall's Sind Krait 362
Western Kukri Snake 170
Whitaker's Boa 90
White-barred Kukri Snake 160
White-lipped Pit Viper 462

Y

Yellow-banded Mangrove Snake 350
Yellow-lipped Sea Krait 386
Yellow-speckled Wolf Snake 196
Yellow-spotted Wolf Snake 200

Z

Zaw's Wolf Snake 206

INDEX TO SCIENTIFIC NAMES

A

Acrochordus granulatus 96
Ahaetulla dispar 322
Ahaetulla nasuta 328
Ahaetulla prasina 324
Ahaetulla pulverulenta 332
Amphiesma beddomei 242
Amphiesma khasiense 218
Amphiesma monticola 246
Amphiesma platyceps 238
Amphiesma stolatum 234
Amphiesma venningi 214
Amphiesma xenura 220
Argyrogena fasciolata 138
Astrotia stokesii 400
Atretium schistosum 260

B

Blythia reticulata 268
Boiga andamanensis 290
Boiga beddomei 288
Boiga ceylonensis 286
Boiga cyanea 294
Boiga forsteni 302
Boiga gokool 284
Boiga multifasciata 296
Boiga multomaculata 276
Boiga ocellata 300
Boiga ochracea 280
Boiga trigonata 282
Boiga wallachi 306
Brachyophidium rhodogaster 58
Bungarus andamanensis 358
Bungarus caeruleus 354
Bungarus fasciatus 352
Bungarus niger 360
Bungarus sindanus walli 362

C

Calliophis melanurus 364
Calliophis nigrescens 366
Cantoria violacea 350

Cerberus rynchops 340
Chrysopelea ornata 188
Chrysopelea paradisi 190
Coelognathus flavolineatus 108
Coelognathus helena helena 110
Coelognathus helena monticollaris 112
Coelognathus radiatus 106
Coluber gracilis 142
Coluber ladacensis 136
Coluber ventromaculatus 134
Coronella brachyura 156

D

Daboia russelii 404
Dendrelaphis cyanochloris 178
Dendrelaphis grandoculis 182
Dendrelaphis pictus 174
Dendrelaphis tristis 184
Dryocalamus nympha 208

E

Echis carinatus 410
Elaphe prasina 98
Elaphe frenata 100
Elaphe porphyracea 120
Enhydrina schistosa 390
Enhydris enhydris 336
Enhydris plumbea 334
Enhydris sieboldii 338
Eryx johnii 86
Eryx whitakeri 90
Euprepiophis mandarinus 122

F

Fordonia leucobalia 348

G

Gerarda prevostiana 344
Gloydius himalayanus 414
Gongylophis conicus 84
Gonyosoma oxycephalum 104
Grypotyphlops acutus 52

H
Hydrophis caerulescens 396
Hydrophis cyanocinctus 392
Hydrophis ornatus 394
Hypnale hypnale 418

K
Kerilia jerdonii 388

L
Lapemis curtus 398
Laticauda colubrina 386
Liopeltis frenata 152
Lycodon aulicus 202
Lycodon capucinus 204
Lycodon flavomaculatus 200
Lycodon jara 196
Lycodon laoensis 194
Lycodon striatus 198
Lycodon travancoricus 192
Lycodon zawi 206
Lytorhynchus paradoxus 154

M
Macropisthodon plumbicolor 256
Macrovipera lebetina 408
Melanophidium punctatum 54

N
Naja kaouthia 376
Naja naja 372
Naja oxiana 382
Naja sagittifera 378

O
Oligodon affinis 170
Oligodon albocinctus 160
Oligodon arnensis 168
Oligodon nikhili 172
Oligodon taeniolatus 162
Ophiophagus hannah 384
Orthriophis cantoris 118
Orthriophis hodgsonii 116
Orthriophis taeniurus 114
Ovophis monticola 426

P

Pareas macularius 94
Pelamis platurus 402
Plectrurus perrotetii 60
Protobothrops jerdonii 428
Psammodynastes pulverulentus 318
Psammophis condanarus 312
Psammophis leithii 316
Psammophis longifrons 314
Psammophis schokari 308
Pseudoxenodon macrops 250
Ptyas korros 128
Ptyas mucosa 124
Ptyas nigromarginata 130
Python molurus bivittatus 80
Python molurus molurus 78
Python reticulatus 82

R

Ramphotyphlops braminus 46
Rhabdophis himalayanus 230
Rhabdophis subminiatus 232
Rhabdops olivaceus 264

S

Sibynophis collaris 210
Sibynophis subpunctatus 212
Sinomicrurus macclellandi 370
Spalerosophis arenarius 150
Spalerosophis atriceps 146

T

Trachischium laeve 262
Trimeresurus albolabris 462
Trimeresurus andersoni 454
Trimeresurus cantori 446
Trimeresurus erythrurus 460
Trimeresurus gramineus 436
Trimeresurus labialis 466
Trimeresurus macrolepis 422
Trimeresurus malabaricus 430
Trimeresurus medoensis 440
Trimeresurus popeiorum 442
Trimeresurus strigatus 434

Typhlops beddomei 50
Typhlops diardii 48

U
Uropeltis arcticeps madurensis 70
Uropeltis ellioti 62
Uropeltis liura 74
Uropeltis macrolepis macrolepis 64
Uropeltis macrolepis mahableshwarensis 68
Uropeltis phipsonii 72

X
Xenochrophis melanzostus 226
Xenochrophis piscator 222
Xenochrophis sanctijohannis 224
Xenochrophis trianguligerus 228
Xenopeltis unicolor 76
Xylophis perroteti 272
Xylophis stenorhynchus 274

NOTES

NOTES

GAZETTEER PLATE 3

Site	Grid
Ahmednagar	B3
Alagarkoil Hills	7C
Amboli	5B
Anamalais	7C/8C
Belgaum	5B
Biligirirangan Hills	6C/7C
Mumbai (Bombay)	3A
Cherambadi	7C
Coimbatore	7C
Coonoor	7C
The Dangs	2A
Dharwad	5B
Goa Gap	5B
High Wavys	8C
Igatpuri	3A
Kalakad	8C
Kalsa	6B
Kanyakumari	8C
Khandala	3A
Koppa	6B
Koyna	4A
Kumili	8C
Kurduwadi	B3
Lonavla	3A
Madura Hills	7D
Mahableshwar	4A
Matheran	3A
Mukurti Peak	7C
Mulshi	3A
Munnar	7C
Nane Ghat	3A
Nelliampatti Hills	7C
Nilgiri Hills	7C
Palni	7C
Panchgani	4A
Periyar	8C
Phaltan	B3
Ponmudi	8C
Pune	3A
South Arcot	6D
Shevaroy Hills	7D
Silent Valley	7C
Sinhagad	3A
Talewadi	5B
Thane	A3
Thekkady	8C
Tiger Shola	7C
Tirunelveli Hills	8C
Udhagamandalam	7C
Valparai	7C
Visapur	B3
Wynad	7C

MESSIAH database • ecollage@vsnl.net

GAZETTEER PLATE 4

Site	Grid
Car Nicobar Is.	A6
Cuthbert Bay	A3
Galathea	B9
Great Nicobar Is.	B8
Kamorta Is.	B7
Katchall Is.	B8
Little Nicobar Is.	B8
Mayabunder	A3
Nancowry Is.	B8
Narcondam Is.	C2
North Andaman Is.	A2
South Andaman Is.	A4
South Cinque Is.	A4
Wandoor	A4

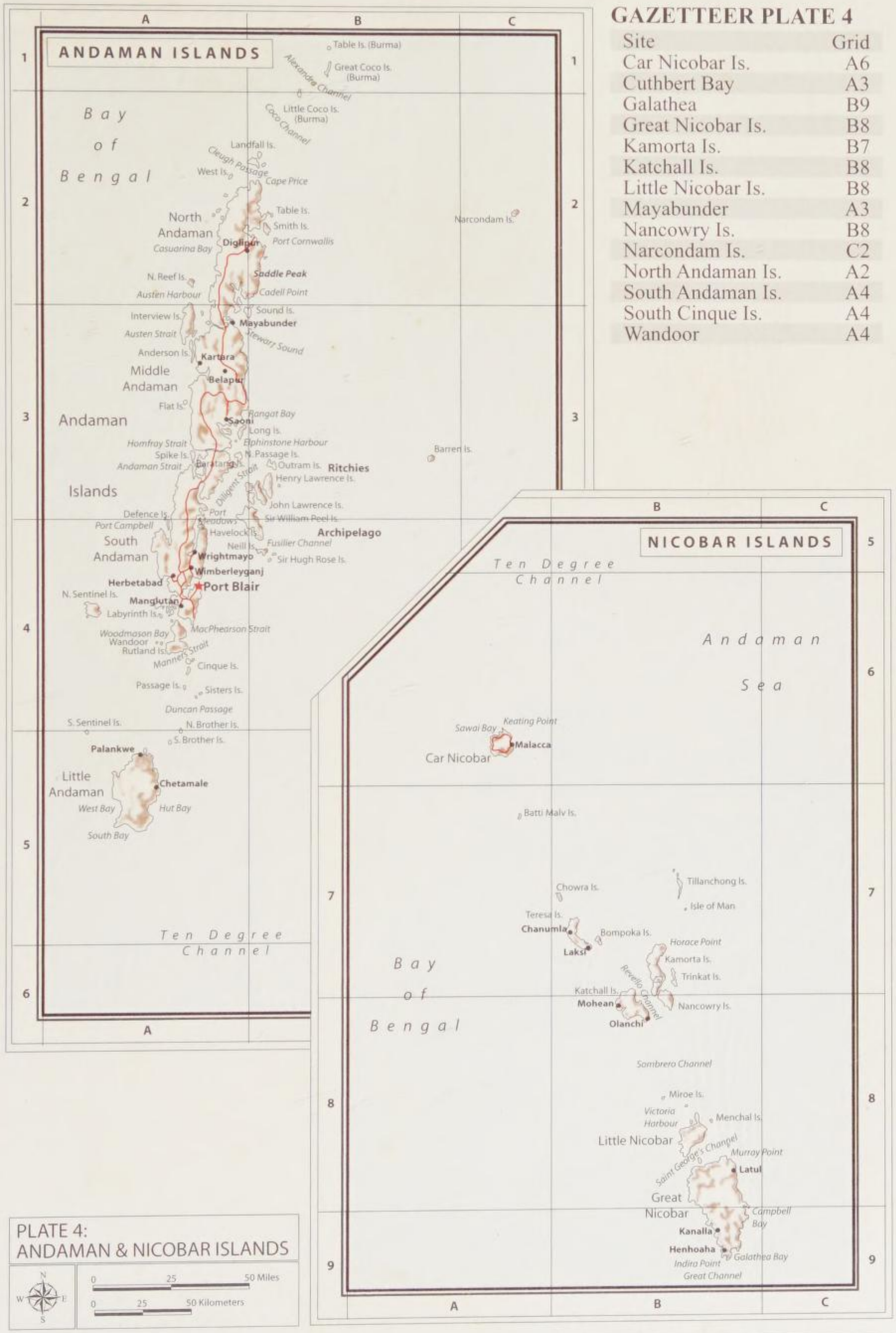


PLATE 4:
ANDAMAN & NICOBAR ISLANDS

N W E S

0 25 50 Miles

0 25 50 Kilometers

Maps of the Andaman and Nicobar Islands reproduced from material courtesy The General Libraries, The University of Texas at Austin (www.lib.texas.edu/maps). Used with permission.

PLATE 2. NORTHEAST INDIA

N W E S

50 0 50 100 150 200 Miles

60 0 60 120 180 240 Kilometers

International boundaries on this map have not been verified or authenticated.

SIKKIM
Gangtok
Darjeeling
Jalpaiguri
BUXAR DUARS
SANKOSH
WANAS
Goalpara
BRAHMAPUTRA
Orang
Dispur
Guwahati
A S
Nongkhyllem
Sessa
Eagle Nest
Nameri
Shillong
MEGHALAYA
GARO HILLS
KHASI JAYANTIA HILLS
WEST BENGAL
Agartala
TRIPURA
Trishna
Dampa
MIZ
Ngengpu
A R P

ALTITUDE SCALE
> 5000m
4000-5000m
2000-4000m
1000-2000m
750-1000m
500-750m
250-500m
100-250m
0 - 100m

D

TSANG PO

DIHANG

Dibang Valley

SUBANSIRI

Mouling

MISHMI HILLS

e Valley

H A L
S H
HILLS
ar

ABOR HILLS

Kane

Dibrugarh

Sadiya

Miao

NOA D

Margherita

PATKAI HILLS

Naharkatia

Gana

Sibsagar

NAGA HILLS

M

NAGALAND

Kohima

MANIPUR

Imphal

Keibul Lamjao

ookpi Lokchao

GAZE

Site
Abor H
Buxar
Cachar
Chang
Darjee
Dibrug
Garo H
Goalpa
Gopalc
Jalpaig
Jayanti
Khasi
Margh
Miao
Mishm
Naga H
Nahark
Papum
Patkai
Sadiya
Samag
Shillor
Sibsag

D

This is the definitive color field guide to Indian snakes aimed at both amateurs and specialists. It concisely describes more than 150 species of snakes, both venomous and non venomous. Many of the species covered are also found in Pakistan, Nepal, Bhutan, Bangladesh and Sri Lanka.

Snake identification is made easy through stunning photographs and includes many of the color variations found in Indian snakes. Each species account includes description, scalation, natural history, a distribution map and look-alikes. Other sections include snakebite, snake people in India, laws protecting snakes and a complete, up to date checklist.

Romulus Whitaker has spent the last 50 years wandering around India looking at snakes. He has written extensively and produced award-winning documentaries about reptiles. He lives on a snake infested farm in South India.

Ashok Captain is an ophidian taxonomist and photographer who is either in the hill forests of India's remote northeast or the specimen rooms at the Bombay Natural History Society. He is particularly fond of the monsoons, umbrellas and leeches.

Each book you buy contributes to the printing of "Snakes of India" in 15 Indian languages.

If you have new information on Indian snake distribution, behavior, snakebite or good photographs of species not covered in this book, write to us.

Romulus Whitaker
serpentcatcher@yahoo.com

Ashok Captain
ashokcaptain@hotmail.com

ISBN 81 901873 0 9

9 788190 187305 12500
US $ 125